FINANCIAL TIMES

THURSDAY 17 NOVEMBER 2022 | INTERNATIONAL NEWSPAPER OF THE YEAR | EUROPE

Tories need to drop the Thatcher tribute act
ROBERT SHRIMSLEY, PAGE 19

Australia's defence dilemma with China
BIG READ, PAGE 17

Nato huddle
Missile strike not 'deliberate'

Some of the world's most powerful leaders huddle together in Bali, Indonesia, yesterday as they discuss a missile that landed in Poland, killing two people.

The meeting comprises, from left, US president Joe Biden, German chancellor Olaf Scholz, Spanish prime minister Pedro Sánchez, French president Emmanuel Macron, British prime minister Rishi Sunak, Spain's foreign minister José Manuel Albares Bueno, France's foreign minister Catherine Colonna, Canadian prime minister Justin Trudeau, US security adviser Jake Sullivan and secretary of state Antony Blinken.

Nato chief Jens Stoltenberg said yesterday there was "no indication" that the missile was a "deliberate attack", saying it had probably been fired by Ukraine while defending itself against a barrage of Russian weapons. However, Kyiv insisted it was not a Ukrainian weapon.
News & analysis page 3

Steffen Hebestreit/BPA

Broker Genesis halts withdrawals at lending unit as crypto storm worsens

- FTX-driven turmoil blamed
- Liquidity issues force action
- US lawmakers examine market

NIKOU ASGARI AND PHILIP STAFFORD — LONDON

Genesis Trading has halted withdrawals at its lending unit as the crypto financial services group blamed "unprecedented market turmoil" sparked by the collapse of Sam Bankman-Fried's FTX.

Genesis, which plays a key role in digital asset fixed income markets, said its decision to suspend redemptions and new loan originations followed "abnormal withdrawal requests which have exceeded our current liquidity".

The troubles at Genesis are the latest sign that the failure of Bankman-Fried's FTX crypto exchange and Alameda Research, his trading firm, is sending shockwaves across the industry. The US House of Representatives financial services committee announced yesterday a hearing into the collapse of FTX and its impact on the crypto market.

Genesis allows clients to lend their coins in exchange for yields of up to 10 per cent, while also providing similar services to groups including exchanges operator Gemini, which is run by twins Tyler and Cameron Winklevoss. Genesis also lends digital coins to institutions such as hedge funds and family offices.

Genesis had $2.8bn of "active loans" at the end of the third quarter of 2022, according to its website. It originated $131bn of loans in 2021.

> Genesis had $2.8bn of 'active loans' at the end of the third quarter of 2022, according to its website

Its parent company, Digital Currency Group, which is owned by billionaire Barry Silbert, said the suspension of withdrawals "was made in response to the extreme market dislocation and loss of industry confidence caused by the FTX implosion".

The suspension has also prompted concerns over its business partners. Gemini yesterday said it was "aware" of the problems facing Genesis.

Gemini and Genesis are partners on a product that pays customers interest for lending out their crypto assets. Genesis is the main lending partner. "We are working with the Genesis team to help customers redeem their funds . . . as quickly as possible," Gemini said.

Another Genesis partner, crypto platform Luno, said its customers' assets were safe, adding it had "taken steps" to ensure that customers could access their funds "in the event withdrawals from Genesis are not possible".

Genesis said it had hired "the best advisers in the industry to explore all possible options" and would deliver a plan for the lending unit next week. It was "working tirelessly" to fix issues, including "sourcing new liquidity".

Genesis said last week it had $175mn in funds stuck on FTX. On Friday, hours before Bankman-Fried's exchange filed for bankruptcy, its parent injected $140mn into Genesis — the second lifeline DCG has given Genesis this year.

Genesis was hit hard by the failure of Three Arrows Capital, the Singapore-based crypto hedge fund that filed for bankruptcy in July when its bets on bitcoin and other cryptocurrencies soured. Court documents showed that Genesis had lent Three Arrows $2.4bn. Over the summer, DCG assumed Genesis's entire $1.2bn claim against Three Arrows.

Genesis's trading and custody businesses are fully operational, Genesis said, adding that its trading arm was "independently capitalised and operated — and separate from all other Genesis entities".

DCG, which owns crypto asset manager Grayscale Investments and news site CoinDesk, said there was "no impact on the operations of DCG and our other wholly owned subsidiaries".
Bahamas defends FTX role page 11
Lex page 20

Briefing

▸ **German ruling on EY's work for Wirecard put off**
The long-awaited ruling on potential misconduct by the Big Four firm in its work for failed payments group Wirecard has been pushed to next year.— PAGE 6

▸ **Schwarzman Trump snub**
Blackstone founder Stephen Schwarzman, a big Republican donor, has said he will not back Donald Trump's bid for the White House.— PAGE 4; FT VIEW, PAGE 18

▸ **ECB financial strife alert**
The central bank has warned that a toxic combination of recession, inflation, rising funding costs and lower liquidity threatens to cause turmoil in the eurozone.— PAGE 2

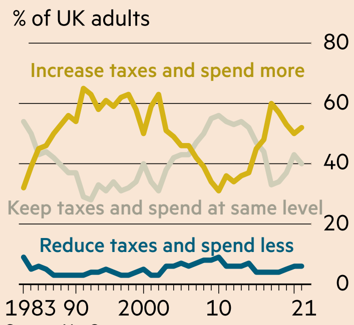
▸ **G20 sticks to 1.5C target**
Leading nations have pledged to limit warming to 1.5C in a move welcomed by negotiators at the COP summit where it has become a flashpoint.— PAGE 3; LEX, PAGE 20

▸ **Bolloré to quit JLR helm**
Former Renault boss Thierry Bolloré will step down after just two years in the role and a run of losses at the Tata-owned luxury carmaker.— PAGE 6

▸ **China's PCR test bill soars**
Coronavirus test providers have suffered a surge in unpaid fees as local governments struggle to fund mass testing under the zero-Covid policy.— PAGE 4

Datawatch

Fiscal attitudes
% of UK adults



Source: NatCen

UK finance minister Jeremy Hunt delivers his Autumn Statement today. Cuts in taxes and spending have never been popular among the British public, with most people wanting more spending on health, education and social benefits

Sign up to 'hardcore' working culture or move on, Musk tells Twitter staff

CRISTINA CRIDDLE AND IAN JOHNSTON — LONDON
JAVIER ESPINOZA — BRUSSELS

Elon Musk has given Twitter staff an ultimatum over their future at the social media platform, telling them to commit to an "extremely hardcore" working culture of long hours or receive three months' severance pay.

In an email to staff, Musk wrote that "only exceptional performance will constitute a passing grade" as the company strove to build what he referred to as "Twitter 2.0".

Employees have been asked to formally register their desire to be part of the new Twitter through a link in the email. Those who have not done so by 5pm EST today will receive three months' severance pay, according to the email seen by the Financial Times and first reported by the Washington Post.

The email comes less than two weeks after Musk axed about half of Twitter's 7,500-strong workforce following his $44bn takeover last month. This week, more staff were fired and locked out of systems, some after expressing concerns or dissent publicly on Twitter or through internal messages on Slack, according to three former employees.

It is the latest development in a tumultuous few weeks for Twitter with Musk at the helm, following a botched rollout of the flagship premium subscription service Twitter Blue, which had its "blue tick" feature abused by impersonators on the platform.

It also suffered an exodus of some remaining top executives last week, adding to regulators' fears over its data security and privacy compliance.

Musk disclosed in a tweet on Tuesday that Twitter Blue, the platform's subscription service that lets paid users access additional features including a blue tick, would return on November 29 after its high-profile glitches. Blue tick verification that predates the Musk era and has not been paid for will be "removed in a few months", he added.

Musk's email outlined that Twitter would focus on engineering, stating it was "a software and servers company".

Twitter employees were told last week to return to the office for a minimum of 40 hours a week unless they had a specific exemption. His latest email said staff were expected to work extremely long hours at high intensity for the social media platform to succeed in an "increasingly competitive world".
EU turns up heat & **Tesla pay** page 8
Brooke Masters page 19
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Song of the faithful opens Trump's presidential bid
Analysis ▸ PAGE 4

Austria	€4.30	Morocco	Dh50
Bahrain	Din1.8	Netherlands	€4.30
Belgium	€4.30	Norway	NKr45
Croatia	Kn32/€4.25	Oman	OR1.60
Cyprus	€4.00	Pakistan	Rupee350
Czech Rep	Kc120	Poland	Zl 24
Denmark	DKr43	Portugal	€4.00
Egypt	E£59	Russia	€5.00
France	€4.30	Serbia	NewD530
Germany	€4.30	Slovenia	€4.00
Greece	€4.00	Spain	€4.00
Hungary	Ft1350	Switzerland	SFr6.50
India	Rup220	Tunisia	Din7.50
Italy	€4.00	Turkey	TL50
Luxembourg	€4.30	UAE	Dh23
Malta	€4.00		

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World Markets

STOCK MARKETS

	Nov 16	Prev	%chg
S&P 500	3971.58	3991.73	-0.50
Nasdaq Composite	11218.27	11358.41	-1.23
Dow Jones Ind	33639.52	33592.92	0.14
FTSEurofirst 300	1698.29	1712.20	-0.81
Euro Stoxx 50	3883.15	3915.09	-0.82
FTSE 100	7351.19	7369.44	-0.25
FTSE All-Share	4035.87	4055.88	-0.49
CAC 40	6607.22	6641.66	-0.52
Xetra Dax	14234.03	14378.51	-1.00
Nikkei	28028.30	27990.17	0.14
Hang Seng	18256.48	18343.12	-0.47
MSCI World $	2678.23	2653.94	0.92
MSCI EM $	960.64	939.78	2.22
MSCI ACWI $	621.28	614.79	1.06
FT Wilshire 2500	5201.51	5150.16	1.00
FT Wilshire 5000	40633.93	40231.02	1.00

CURRENCIES

Pair	Nov 16	Prev	Pair	Nov 16	Prev
$/€	1.041	1.037	€/$	0.961	0.965
$/£	1.189	1.190	£/$	0.841	0.841
£/€	0.875	0.871	€/£	1.143	1.148
¥/$	139.345	139.240	¥/€	144.996	144.343
¥/£	165.723	165.653	£ index	78.145	77.295
SFr/€	0.981	0.980	SFr/£	1.121	1.124

CRYPTO

	Nov 16	Prev	%chg
Bitcoin ($)	16439.28	16872.61	-2.57
Ethereum	1198.00	1251.58	-4.28

COMMODITIES

	Nov 16	Prev	%chg
Oil WTI $	84.53	86.92	-2.75
Oil Brent $	91.97	93.86	-2.01
Gold $	1771.35	1768.90	0.14

GOVERNMENT BONDS

Yield (%)	Nov 16	Prev	Chg
US 2 yr	4.37	4.36	0.01
US 10 yr	3.73	3.81	-0.08
US 30 yr	3.89	3.98	-0.09
UK 2 yr	3.04	3.14	-0.10
UK 10 yr	3.14	3.29	-0.15
UK 30 yr	3.31	3.47	-0.16
JPN 2 yr	-0.04	-0.05	0.01
JPN 10 yr	0.24	0.24	0.00
JPN 30 yr	1.44	1.46	-0.02
GER 2 yr	2.08	2.16	-0.08
GER 10 yr	1.99	2.11	-0.11
GER 30 yr	1.93	2.05	-0.12

Prices are latest for edition
Data provided by Morningstar

A Nikkei Company

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Stability review

ECB flags growing risk of financial turmoil

Banks, investment funds and regulators told to prepare for tough times

MARTIN ARNOLD — FRANKFURT

A toxic mix of recession, soaring inflation, rising funding costs and lower liquidity threatens to trigger financial market turmoil in the eurozone, the European Central Bank has warned.

Luis de Guindos, vice-president, urged banks to take more provisions for bad loans, global regulators to make investment funds hold more liquid assets, and the ECB to be prudent in starting to shrink its €5tn bond stockpile next year.

The ECB's twice-yearly financial stability review said high inflation, a growing likelihood of a recession and rising financing costs "pose increasing challenges" for indebted households, businesses and governments and could produce more bankruptcies and financial market volatility.

"All of these vulnerabilities could unfold simultaneously, potentially reinforcing one another," the report added.

The ECB has itself contributed to the strains by raising interest rates sharply this year and it plans to discuss how to start shrinking its almost €5tn portfolio of bonds at its next policy meeting in December — a move that is likely to increase pressure on market liquidity.

This should be done "with a lot of prudence", de Guindos said. In his personal opinion it would mean starting with "partial and passive" quantitative tightening, which means replacing only some of the bonds that mature rather than actively selling securities.

This year's turmoil in UK gilt markets and an earlier cash crunch that hit European energy traders had underlined how the region's financial system was increasingly vulnerable to sharp moves in market prices, the ECB said.

> 'It cannot be the same "whatever it takes" policy approach that we have seen during the pandemic'

It called on global regulators, co-ordinated by the Financial Stability Board, to accelerate work to address the non-bank financial sector's vulnerability to liquidity squeezes, similar to one that hit money market funds after the pandemic struck in March 2020.

De Guindos said the priority was for investment funds exposed to the risk of rapid and large-scale withdrawals in times of stress to be forced to hold a certain proportion of liquid assets.

Cash holdings by eurozone investment funds had risen this year but their holdings of liquid assets "remain relatively low", said the ECB. "The risk remains high that investment funds could, in an adverse scenario, amplify a market correction via procyclical selling behaviour."

While many lenders enjoyed improved profit margins thanks to rising interest rates, a "weaker economy and increased credit risk may weigh on bank profitability prospects in the medium term", it said.

Some companies in sectors such as construction and utilities were struggling with high energy prices, debt levels and a limited ability to pass on higher costs to customers, de Guindos said.

The central bank also urged governments to ensure their support measures in response to the energy crisis were targeted and temporary, having already committed to spend an extra 1.4 per cent of euro area gross domestic product. "It cannot be the same 'whatever it takes' fiscal policy approach that we have seen during the pandemic," de Guindos added.

See Markets Insight

Germany

Chaotic Berlin municipal elections ordered to be rerun

GUY CHAZAN — BERLIN

Berlin's top court has ordered a rerun of last September's municipal elections, the culmination of a scandal that led to widespread complaints about how Germany's capital is governed.

The court nullified the September 26 elections to Berlin's state parliament, which appointed centre-left mayor Franziska Giffey and 12 district councils, saying it was the only way to "safeguard constitutional standards". A rerun must be carried out in 90 days.

The chaos of election day in Berlin, a city of 3.6mn people, which last year coincided with the annual marathon, came as a shock to a nation that prides itself on the smooth running of its institutions. The court described it as a "unique event in postwar German electoral history".

Berliners had to queue for hours at polling stations, with many giving up and going home without casting their vote. There was a shortage of ballot boxes and ballot papers, and some polling stations were forced to stay open long after the official closing time of 6pm, when broadcasters were already using exit polls to predict the result.

The court said 20,000-30,000 votes were affected by "electoral mistakes", a number high enough to have had an impact on the allocation of seats in the parliament and councils.

"A complete rerun of the election is the only way to ensure the composition of the parliament and councils meets the constitutional requirements of democratic elections," it said.

The court said the problems started with early preparations for the election, during which officials vastly underestimated the number of eligible voters per polling station, and the time it would take them to cast their ballots.

Last year's election was particularly complex because voters were not only being asked to elect MPs for the Bundestag and Berlin parliament, plus councillors for all the city's district councils, but also to vote in a referendum on whether to expropriate private residential property owners.

The court also said that at least five of 12 electoral districts received the wrong ballot papers, while others did not receive enough.

In some constituencies, officials dealt with the shortage by simply making copies of ballot forms on the spot. However, votes cast on these were invalid because they "didn't meet the statutory provisions" of German law.

The court said "not just a few but thousands of eligible voters had not been able to cast their vote at all on election day in Berlin, or . . . were only able to do so under unacceptable conditions". That had violated the "principles of freedom, universality and equality as applied to elections that are set out in the constitution of the state of Berlin".

The court rejected the idea of rerunning the poll in only a handful of constituencies, "given the large number and gravity of the election mistakes".

The court's verdict came just days after MPs voted to rerun last September's elections to the Bundestag in 431 electoral districts in the capital, citing the same irregularities flagged by the Berlin court.

Europe. Migrant crisis

Rescue ship dispute sours Italy's ties with France

Row reinforces concern in EU about premier Meloni's stance on working with Brussels

AMY KAZMIN — ROME

Homeless: migrants on the Ocean Viking wait to disembark
Vincenzo Circosta/AFP/Getty Images

On taking power last month, Italy's new prime minister Giorgia Meloni tried to reassure Rome's European partners that she was ready to make the leap from confrontational opposition firebrand to pragmatic leader.

Yet Italy's treatment of a charity ship carrying 234 migrants rescued from the Mediterranean has already sparked a row with France and reinforced concern about the rightwing leader's intention to engage constructively with the EU, as well as raise questions over the new government's diplomatic competence.

Italy refused to allow SOS Méditerranée's Ocean Viking to dock for nearly three weeks, forcing the vessel to sail to France, where the passengers, including 57 children, were disembarked.

Paris condemned Italy's conduct and scrapped plans to take 3,500 migrants from Italy, agreed as part of an EU-wide deal to relocate 8,000 asylum seekers from the countries of their first arrival. France has also reinstated border controls with its neighbour.

Laurence Boone, France's minister for EU affairs, accused Meloni's government of "a breach of trust" with France and the EU and of violating international law. Meloni, who campaigned on a pledge to stem the flow of migrants from north Africa across the sea to Italy, has professed bewilderment at the French response, calling it "incomprehensible" and "unjustified".

But the souring of relations just weeks after meeting French president Emmanuel Macron has fuelled debate on whether Meloni genuinely failed to anticipate the impact of her government's stance or whether she intends to take a confrontational approach with the EU.

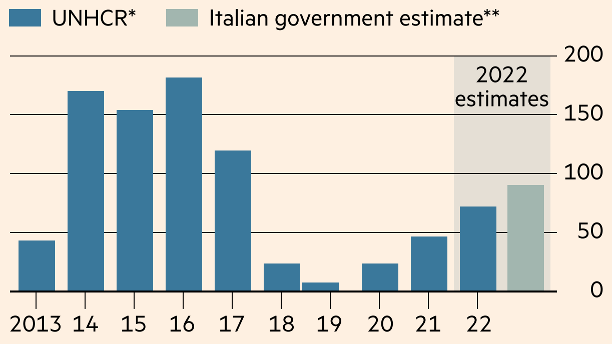
"The impression was that this was not something planned but [it] went out of control," said Nicoletta Pirozzi, head of EU programmes at Rome's Institute of International Affairs. "They made mistakes. It was something you do not expect from a government that [said it] had clear European objectives."

But Cecilia Sottilotta, a political science professor at the University for Foreigners of Perugia, said the affair could also reflect the government's instinct to inflame passions on migration to maintain support among its rightwing base.

"They don't really want to solve anything with the EU. If there is a constant emergency, and if they can wage this invented war against migrants and other 'bad European partners who are selfish and cannot do their part', it is convenient. If the problem of migration was solved tomorrow, these parties would lose 60 per cent of their votes right away."

Migrant numbers on the rise again after a sharp drop a few years ago

Annual arrivals by sea of refugees and migrants ('000)



* 2022 year-to-date estimate to Sep 30 ** As of Nov 11
Sources: UNHCR; FT research

The number of migrants arriving in Italy after crossing the Med is far below the 2016 peak of more than 181,000. But the total has risen in the past two years. Meloni said on Friday that more than 90,000 had reached Italy so far in 2022. She also complained the EU plan to disperse asylum seekers was not working well, with only 117 relocated from Italy since the plan was agreed this summer and just 38 sent to France.

Meloni's rightwing coalition led by her Brothers of Italy party has long criticised humanitarian groups such as SOS Méditerranée, Doctors without Borders and SOS Humanity, which run ships to rescue migrants from unseaworthy boats. Meloni has argued such missions encourage people to undertake the risky crossing knowing they will be aided if they are in distress.

The Ocean Viking is one of four such ships to have tried Italy since Meloni took power on October 22. Rome allowed three to dock, but it tried unsuccessfully to let only passengers it considered vulnerable to disembark. The government ignored appeals from the Ocean Viking, which then sailed to France.

> 'The impression was that this was not something planned but [it] went out of control'

Doubts about Italy's diplomatic competence were fuelled by a statement by Meloni on Wednesday night expressing "heartfelt appreciation" to France for agreeing to receive the ship. The next day, France said it had not agreed and attacked Italy for abdicating its legal and moral responsibilities to a vessel

Meloni later said she had been prompted by an Italian news report that France would take the boat, and when the story was not denied by Paris she felt she should express her gratitude.

Analysts have expressed bemusement at Meloni's claim, with its suggestion of naïveté and failure to use official diplomatic channels. But Alberto Alemanno, a professor of EU law at HEC Paris, said Meloni probably knew what she was doing and "set a trap for Macron" to force the issue of migration higher up the EU's agenda.

"She is expected to represent the Italian interest. This does not mean to . . . say 'yes' to everything in Brussels. She is taking a stance that is helping at home."

But Pirozzi warned: "Italy is now very much isolated at the beginning of the new government's mandate."

Additional reporting by Giuliana Ricozzi in Rome

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World Cup Favourites Brazil have evolved but remain beatable

SIMON KUPER

Over a half-hour in Belo Horizonte in 2014, Brazil hit rock bottom. During the World Cup semi-final against Germany the hosts' defence was all over the place — except in front of its own goal. David Luiz and Marcelo kept making forward runs at all the wrong moments. A vast space in front of the defence was occupied only by pressing Germans, who won ball after ball and powered into Brazil's penalty area.

After 29 minutes the Germans were 5-0 up. The bars on São Paulo's Avenida Paulista were packed with Brazilians laughing in disbelief.

The final score of 7-1 was a one-off, but Brazil's vulnerability against organised, high-pressing European teams was structural. Brazil were knocked out of four World Cups from 2006 to 2018 by western European teams. The "divine canary", a name a Dutch writer gave to the great Brazilian teams after the players' yellow shirts, was feared extinct.

Now, finally, the *Seleção* seem to have caught up. They have organised themselves, and got lucky with a flood of attacking talent. Their playmaker Neymar, pictured, now entering his third World Cup, says this is the best Brazil side he has played for. The team are the bookmakers' favourites. Yet the five-time winners remain beatable.

Under Tite, Brazil's coach for the past six years — an eternity in this job — they regained excellence fast. They might have won the last World Cup if Fernandinho's freakish own goal and Thibaut Courtois' equally freakish goalkeeping had not given Belgium the quarter-final.

In World Cup qualifiers for Qatar, Brazil racked up 45 points, two more than Argentina's 20-year-old record despite their final match against the Argentines being cancelled. Watching the team's last friendly before the World Cup, a 5-1 hammering of Tunisia in Paris in September, it felt at times like the best of Brazil mixed with the best of Bayern Munich. There was Brazilian touch and short passing, coupled with almost German-level high pressing to win back the ball, and when needed, rapid forward passes to the rapid strikers.

It is up front that Brazil have improved most. The likes of Real Madrid's Vinícius "Vini" Junior and Rodrygo, Barcelona's Raphinha, Arsenal's Gabriel Jesus and Spurs' Richarlison have mastered grown-up tactics at leading European clubs but also have the creativity to make their own chances. At last there are nippy forwards running on to Neymar's flicks and tricks. Brazil should be lovely to watch.

"The other day Neymar looked at me and said: 'Coach, these kids that are coming, it's just nuts. What a good headache to have, trying to put them all on the field,'" Tite told Reuters.

Brazil are in a tough group with Serbia, Switzerland and Cameroon. Yet against these teams they may start daringly, with the forward trio of Vini, Raphinha, and Richarlison as a classic centre-forward. Wingers can stretch opposing defences, making space in the middle for playmaker Neymar and his midfield companion Lucas Paquetá.

That would leave Casemiro — the brain of a chess grandmaster, the body of a heavyweight boxer — to do most of the defensive cleaning up in midfield. Against stronger teams, his Manchester United teammate Fred will probably join him, with Neymar becoming a "false nine" centre-forward.

In goal, Liverpool's Alisson is an excellent keeper and footballer rolled into one. It's in defence that doubts creep in. Danilo at right-back is competent. Marquinhos in central defence is one of football's best markers, blockers and tacklers. But beside him, Thiago Silva, though still perfect positionally, is now 37, his pace is waning and in this attacking teams he risks being left exposed.

Then there's Brazil's longstanding weakness: left-back, the zone exploited by Argentina's Angel Di María for the only goal of last year's Copa América final. Neither Alex Sandro nor Alex Telles, the potential left-backs in Qatar, inspires confidence. Brazil's opponents will aim to play long balls down that flank and counter, leaving Thiago struggling to get across in time.

Brazil still need to prove they can cope with European organisation and pace. But it's possible that in Qatar we'll spot the re-emergence of the divine canary.

Ukraine conflict hotspots expected to shift after Russia's Kherson retreat

Kyiv likely to push on southern front while Moscow will focus forces in eastern Donbas region, say experts

FELICIA SCHWARTZ AND CHRISTOPHER MILLER — KYIV

After Russia's forced retreat from the southern Ukrainian city of Kherson last week, both sides are calculating their next moves, with military analysts predicting fighting will harden in the east and towards Sea of Azov cities in the south.

The next hotspots are expected to be near Donetsk in the eastern Donbas region, particularly near the cities of Bakhmut and Avdiivka, where combatants are already mired in battles marked by intense artillery barrages and close-quarter combat, and in the south en route to the strategic cities of Melitopol and Mariupol.

But a western official cautioned that despite Ukrainian momentum, "as we go into 2023, we are still expecting a grind, we are still expecting it to be largely static, and we still expect neither side to particularly win or lose".

Russia is likely to renew its focus on the east following its pullback in the south, analysts say. The shift would echo the Kremlin's strategy after its forces retreated from Kyiv in the spring, when Moscow declared a new phase of the war aimed at "fully liberating" the Donbas region, where since 2014 Russia has fomented a war with the use of local proxy forces.

Konrad Muzyka, of Rochan Consulting, a Poland-based group that tracks the war, said that alongside its recent mobilisation of about 300,000 troops, Russia's withdrawal from Kherson could play to the Kremlin's advantage, allowing it to move resources from the south and boost its forces along the eastern front line.

"In February, Russia entered Ukraine with a low density of forces and opened up too many operational directions, probably assuming that attacks from the north, south and east would force Kyiv into submission," Muzyka wrote in an analysis. "As this plan did not materialise, Russian forces quickly became spread too thin."

However, he added: "With fewer territories under control, Russian force density will increase and Moscow will have more soldiers per square kilometre than . . . since early March."

Up to 50 per cent of the Russian forces withdrawn from Kherson could be moved to other fronts, mainly in the Donbas, where Moscow has built significant new defensive positions, according to a western official.

Kyiv could also be forced to redirect troops from the south. "Logically Ukraine has to redeploy additional troops to [Donetsk province] to not let the Russians succeed," said Oleksiy Melnyk, a former Ukraine air force lieutenant colonel and now co-director of the Razumkov Centre think-tank in Kyiv.

Ukraine is struggling to push Russian forces back in Donetsk. There is fierce fighting near Avdiivka, the site of a large coke plant, and Bakhmut, which sits on a key highway and is a gateway to larger cities held by Kyiv that serve as important military hubs.

A soldier in a Ukrainian special forces unit near Bakhmut described the battle as "hell" with casualties mounting daily. "It looks like something from the second world war, like a staging ground for D-Day," he said, describing the battlefield as a mess of trenches, bunkers, tank traps, razor wire and artillery craters.

Moving on: a Ukrainian soldier packs up equipment at Mykolayiv, near Kherson, on Tuesday
Chris McGrath/Getty Images

The southern front was likely to be Kyiv's main focus, said Melnyk. "For the Ukrainian side the eastern front is important . . . but the southern front towards Mariupol and Melitopol is operationally more important as this is where Ukraine . . . can cut off Russian supplies for its [troops] . . . and cut off the Crimean peninsula."

Ukrainian forces are unlikely to try to cross the Dnipro river, on which Kherson sits, in large numbers in the immediate future, given the strength of Russian defences on the eastern bank, western officials and analysts predict. But Russia is expected to move its supply lines deeper into Kherson province on that bankside as Ukrainian Himars can reach far into Russian-held territory.

Ukraine was expected to try to position its forces for a possible new land offensive between the eastern and southern fronts, analysts said. Retaking the southern cities of Melitopol, Berdyansk and Mariupol could help set up an approach to Crimea, although analysts and Ukrainian and western officials are divided over whether such a move would be possible.

Ukraine's general staff last week said Russia was building up troops near Melitopol.

Ukrainian analysts said their forces' ability to act with the element of surprise had been critical. "This is a very smart tactic . . . not to jump the gun, not to give heads up to your enemy, but rather to under promise and over deliver," said Yuriy Sak, an adviser to Ukraine's defence minister.

Meanwhile Andriy Zagorodnyuk, a former Ukrainian defence minister, said Russia was likely to increase its missile attacks on energy infrastructure. Fresh strikes targeted Kyiv on Tuesday. "Failure of critical infrastructure in freezing weather is much harder than when the weather is warm, like now," he said.

Although analysts and officials predict a relative stalemate in the coming months, some are concerned Putin might escalate the war if Ukraine makes larger gains than expected.

> 'With fewer territories under control, Moscow will have more soldiers per square kilometre'

The US has warned Russia against using nuclear weapons. On Monday it stepped up its efforts, with CIA director Bill Burns meeting his Russian peer, Sergei Naryshkin, in Turkey, the first in-person contact between US and Russian officials since the war began.

"We have been very open about the fact that we have channels to communicate with Russia on managing risk, especially nuclear risk and risks to strategic stability," a White House official said. "He is conveying a message on the consequences of the use of nuclear weapons by Russia."

Border incident

Missile strike in Poland was not deliberate, conclude Nato and US

FT REPORTERS

Nato chief Jens Stoltenberg has said there is "no indication" that a missile that struck Poland killing two people was a "deliberate attack", saying it was probably fired by Ukraine while defending itself against a barrage of Russian weapons.

Poland and the US announced separately that they had reached the same conclusion.

Stoltenberg, Nato's secretary-general, said the western military alliance had "no indication that Russia is preparing offensive military actions against Nato".

Moscow denied responsibility for the strike in the village of Przewodów near the Ukrainian border on Tuesday afternoon, which came during Russia's biggest missile attack on Ukraine in weeks.

Ukraine president Volodymyr Zelenskyy and some western nations initially blamed Russia for launching the missile, which Warsaw said was a strike by a "Russian-made missile".

Zelenskyy continued to insist yesterday that it was not a Ukrainian weapon.

But Stoltenberg said: "Our preliminary analysis suggests that the incident was likely caused by a Ukrainian air defence missile fired to defend Ukrainian territory against Russian cruise missile attacks."

However, he added: "This is not Ukraine's fault. Russia bears responsibility for what happened in Poland yesterday because this is a direct result of the ongoing war, and the wave of attacks from Russia against Ukraine yesterday.

"Ukraine has the right to shoot down those missiles that are targeting Ukrainian cities and critical Ukrainian infrastructure."

Andrzej Duda, Polish president, said yesterday that investigators believed that "most likely" it had been a Russian-made missile produced in the 1970s, the S300. "We have no evidence that it was launched by Russia."

The White House backed Warsaw's view. "We have seen nothing that contradicts President Duda's preliminary assessment that this explosion was most likely the result of a Ukrainian air defence missile that unfortunately landed in Poland," said US National Security Council spokesperson Adrienne Watson.

Zelenskyy rejected the Nato, Polish and US assessments. "I have no doubt from the evening report to me personally — from the commander of the air force to commander-in-chief [of Ukraine's military General Valerii] Zaluzhny — that it was not our missile or our missile strike," he said. "It makes no sense for me not to trust them, I've gone through the war with them."

Dmitry Peskov, Russian president Vladimir Putin's spokesperson, said the initial claims of Russian responsibility from Kyiv and some western allies were "yet another hysterical, rabidly Russophobic reaction that was not based on any real information".

Reporting by Sam Fleming in Brussels, Raphael Minder and Barbara Erling in Warsaw, Christopher Miller, Felicia Schwartz and Roman Olearchyk in Kyiv and Max Seddon in Riga

Emissions

G20 promises to limit global warming to 1.5C

CAMILLA HODGSON — SHARM EL-SHEIKH

The G20 pledged yesterday to limit global warming to 1.5C in a move welcomed by negotiators at the UN COP27 climate summit in Egypt where the key threshold has become a flashpoint.

The group of leading nations — including the biggest emitters, the US and China, as well as Saudi Arabia, the UK and Germany, acknowledged the effects of climate change would be "much lower at a temperature increase of 1.5C compared with 2C", which was the less ambitious goal in the Paris Agreement.

"We resolve to . . . limit the temperature increase to 1.5C," the group said in a communiqué. This would require "meaningful and effective actions and commitment by all countries".

"The resolve to try and limit the temperature increase to 1.5C is urgent," it added, after two days of talks in Bali.

Whether a reference to the most ambitious temperature goal should be included in a final COP27 agreement has become a point of contention, as some unidentified countries have resisted it.

Germany's climate envoy, Jennifer Morgan, said the inclusion of 1.5C in the G20 communiqué "sent an important signal — to the ministers and negotiators here at COP27 and to the whole world".

"The G20 stand by the Glasgow climate pact. There cannot be any rollback on this in Sharm el-Sheikh," she said.

US climate envoy John Kerry said at the weekend that a "very few" parties had pushed to avoid the inclusion of 1.5C in a final COP27 text, but added that he believed the Egyptian presidency would not want its legacy to be linked with a weakening of the critical goal.

> 'The G20 stand by the Glasgow climate pact and there cannot be any rollback on this'

Extreme weather events are expected to become more common and intense with every fraction of a degree of warming, and the world has already warmed by at least 1.1C compared with the pre-industrial era, scientists have said.

Top climate researchers said last year, in a best-case scenario that involved rapid cuts to emissions, warming could exceed 1.5C by 2060 but could see the planet cool again to 1.4C by 2100 if all the recommended action was taken.

The UN environmental body most recently forecast the world was otherwise on track for a temperature rise of 2.4C to 2.6C by 2100, based on current "woefully inadequate" country pledges.

One of the key objectives of the UN COP26 summit in Glasgow a year ago was to "keep 1.5C alive". However, achieving the goal requires tougher and faster global action than limiting warming to 2C, and this year's summit has been marked by fears about backsliding on previous national commitments.

Laurence Tubiana, a key architect of the Paris Agreement, said an "ambitious G20 is setting the tone for COP".

Policy analysts agreed it would have an effect on the talks in Egypt. Gareth Redmond-King, international lead at the Energy and Climate Intelligence Unit think-tank, said the G20 commitment was "critical, given they represent 75 per cent of global annual emissions".

The G20 statement echoes the G7 meeting pledge earlier this year when leaders acknowledged the need to urgently cut emissions.

The leaders in Bali also encouraged COP27 to "make progress on loss and damage", which refers to financial support for developing countries to cope with climate-related devastation, such as floods and droughts. The communiqué also included commitments on the "phase-down of unabated coal power".

See Lex

COP27 summit

Lula vows 'Brazil is back' in climate fight

BRYAN HARRIS — SÃO PAULO
CAMILLA HODGSON — SHARM EL-SHEIKH

Luiz Inácio Lula da Silva has vowed to put Brazil at the centre of the fight against climate change, with the president-elect telling delegates at the UN COP27 summit in Egypt that he will crack down on illegal deforestation and create a ministry to represent the interests of indigenous people.

Lula, who last month defeated incumbent Jair Bolsonaro in a tightly fought presidential election, also said he would ask the UN to host the COP30 summit in 2025 in the Amazon rainforest.

"It's important for it to be in the Amazon. It's important for the people who defend the Amazon to get to know what the region is," said the incoming president, who will take office on January 1.

"We will fight hard against illegal deforestation. We will take care of indigenous people. I'm here to tell you that Brazil is back in the world," he said, on his first international trip since being elected. "Brazil is emerging from the cocoon to which it has been subjected for the last four years."

The 77-year-old leftwing leader received an enthusiastic welcome from supporters at the summit in Sharm el-Sheikh, who chanted his name as he entered the venue and cheered during his speech yesterday.

In a wide-ranging address, he also called for global efforts to combat inequality and poverty, and the reform of the UN.

Under rightwing Bolsonaro, illegal deforestation surged in the Brazilian part of the Amazon, which accounts for 60 per cent of the total rainforest.

Luiz Inácio Lula da Silva: Brazil's president-elect wants COP30 to be held in the Amazon rainforest

"This devastation [of the Amazon] will be a thing of the past. The crimes that happened during the current government will now be combated," Lula said. "We will rebuild our enforcement capabilities and monitoring systems that were dismantled during the past four years."

In the first nine months of this year, more than 8,500 square kilometres of forest were razed, a 23 per cent increase on the same period last year, according to satellite data from the Brazilian national space research industry.

Bolsonaro regularly spoke about the importance of opening the rainforest to commercial activity, rhetoric that was taken by the region's gold miners and loggers as clearance to cut down forest.

The approach, however, left Latin America's largest nation isolated in international climate change negotiations, with Bolsonaro becoming conspicuously absent at the COP summits.

Deforestation is Brazil's largest source of emissions and parts of the Amazon are now suspected by scientists to be emitting more carbon dioxide than they are absorbing.

Upon his election, Lula quickly signalled that he intended to change Brazil's course, using his victory speech to pledge to halt illegal deforestation, a notoriously difficult proposition given the region's vast size, lack of infrastructure and myriad criminal groups.

The president-elect took time at COP27 to meet governors representing Brazil's Amazonian states and signed a letter indicating his willingness to work with them on the "climate transition".

Lula also reminded delegates of multibillion-dollar pledges for support made to developing nations during previous summits, which had still not come to fruition.

"One of the reasons for my return is to call in these promises," he said.

INTERNATIONAL

Republican party

Schwarzman joins donors dropping Trump

Blackstone founder follows Citadel's Griffin in refusing to back the ex-president

COURTNEY WEAVER — WASHINGTON
MARK VANDEVELDE — NEW YORK

Blackstone founder Stephen Schwarzman has said he will not support Donald Trump's bid to reclaim the US presidency, marking a significant defection by a top Republican party donor who had defended Trump in 2020 after he claimed that the election had been stolen.

"America does better when its leaders are rooted in today and tomorrow, not today and yesterday," Schwarzman said yesterday in a statement first reported by Axios.

"It is time for the Republican party to turn to a new generation of leaders, and I intend to support one of them in the presidential primaries."

The Blackstone founder is one of several high-profile donors to have criticised Trump in recent weeks, a sign of growing wariness over the former president's bid to return to the White House.

Last week, Ken Griffin, the billionaire founder of Citadel, publicly endorsed Florida governor Ron DeSantis as his preferred 2024 candidate. In an interview with Bloomberg News, Griffin called Trump "a three-time loser".

"I'd like to think that the Republican party is ready to move on," Griffin said. He has already given $5mn to DeSantis, who won re-election in his state last week in a landslide.

Rupert Murdoch, the billionaire owner of News Corp, which helped fuel Trump's rise, also appears to have broken with the former president. Since last week's midterms, News Corp outlets from the New York Post to Fox News have all taken shots at Trump, choosing instead to elevate DeSantis.

After Trump's proclamation he would run again for the presidency on Tuesday, the New York Post yesterday ran a strapline at the bottom of its front page: "Florida man makes announcement."

Neither Murdoch nor his son Lachlan, News Corp's co-chair, have commented on the decision.

Schwarzman was quick to align with Trump after his 2016 victory, helping to convene a panel of senior business figures to offer advice on jobs and the economy, and accompanying the new president on a visit to Saudi Arabia that was the first foreign trip of his term.

Their relationship sometimes paid dividends for Schwarzman's private equity firm. In 2017, Riyadh pledged to match up to $20bn in contributions from other investors to a Blackstone fund that planned to invest in power plants, toll roads and similar assets, mostly in the US.

But it also attracted controversy. After a 2017 gathering of rightwing extremists in Charlottesville, Virginia, culminated in the murder of a counter-protester, Schwarzman said he received hundreds of emails accusing him of being a Nazi.

His advisory panel disbanded soon after Trump proclaimed there was "blame on both sides" of the Charlottesville protests. Schwarzman has said he "wasn't outraged" by the remarks.

Party donors said Schwarzman's public break with Trump could encourage other high-profile donors as well as Republican political leaders to follow suit, potentially thwarting Trump's White House bid.

Revenue shortfall

Payments delays hit cash-strapped China Covid test providers

SUN YU — NEW YORK
EDWARD WHITE — SEOUL

China's coronavirus test providers have suffered a surge in unpaid fees as local governments struggle to fund the mass testing programme under President Xi Jinping's zero-Covid policy.

Public records show accounts receivable at the 11 main PCR testing companies soared nearly 90 per cent year on year to hit Rmb38bn ($5.4bn) in September.

The payment delays raise questions about the financial sustainability of the zero-Covid policy, which relies on large parts of the population taking PCR tests every few days, mostly paid for by local governments.

Chinese local authorities are suffering a revenue drop as the economy is battered by the strict coronavirus policy and by a property sector downturn.

"There's no way the government could keep paying for mass testing," said Huang Yanzhong, at the Council on Foreign Relations in New York. "This is not a sustainable operation."

Beijing's efforts to eliminate the pandemic, coupled with the real estate meltdown, has hit the economy and fuelled a record 6.6 per cent drop in national fiscal income in the first nine months of this year.

Last month epidemiologist Liang Wannian boasted that China had built the capacity to test 1bn a day, and local governments are counting on frequent and state-funded PCR tests to keep the pandemic in check.

Dongwu Securities has estimated China's testing drive could cost up to Rmb1.7tn a year, or 9 per cent of total fiscal income in 2021, but few areas can easily afford their share of the bill. Many cities have already postponed payments to PCR test providers without specifying when the money will arrive.

"Local governments are already stretched to the limit when it comes to Covid control and they have to move money around when they need it [for zero-Covid purposes]," said a health commission official in Guangdong, one of the wealthiest provinces.

The situation has alarmed testing companies seeking overdue payments.

"We are very concerned about cities in northern China," said an executive at Shenzhen-based Centre Testing International Group, a big PCR test provider, referring to a region where local authorities have high levels of public debt. "We're not sure when they'll pay us."

On paper, the mostly privately owned Chinese PCR test providers should benefit from orders under a zero-Covid policy, but as local governments strain to pay bills, many face cash flow problems.

Hangzhou-based Dian Diagnostics Group reported a 93 per cent jump in net profit for the first three quarters of this year from a year earlier. But Dian's operating cash flow fell 89 per cent.

Xuchang Bo'ao Runkang Medical Diagnostics Laboratory in Henan province warned this week it would have to stop processing testing samples as orders from January had not been paid.

Additional reporting by Qianer Liu and Xinning Liu

US politics. White House run

Blame for midterms sidestepped at bid launch

Former president plays down poor showing of his acolytes to make glitzy reappearance

LAUREN FEDOR — PALM BEACH, FLORIDA

Seven years after he rode a golden escalator down the atrium of New York's Trump Tower and declared he was running for US president, Donald Trump has launched another presidential bid.

Trump filed the paperwork required to run for president for the third time just minutes before entering the gilded "grand ballroom" of his Mar-a-Lago resort in Palm Beach, Florida, on Tuesday night, with his wife Melania at his side. "Do You Hear the People Sing?" from the musical *Les Misérables* blared over the loudspeakers, before the soundtrack abruptly cut to Lee Greenwood's "God Bless the USA".

In an ornate room adorned with 15 crystal chandeliers, Trump was introduced as the next president before taking to a stage decorated with more than a dozen American flags alongside signs with his original campaign slogan, "Make America Great Again".

Addressing hundreds of his supporters and hundreds more members of the media, Trump, 76, said he was running for office once more "in order to make America great and glorious again".

He described the event as a "very elegant night" in "a very elegant place".

The marble-lined room was a *Who's Who* of Trump's most vocal allies, including former advisers such as Roger Stone, pardoned by Trump at the end of his presidency for his convictions relating to the Mueller investigation, Stephen Miller and Sebastian Gorka.

Also present were Devin Nunes, the former congressman who is now chief executive of Trump's struggling media company, Trump Media & Technology Group; Richard Grenell, Trump's one-time ambassador to Germany; and Mike Lindell, the MyPillow chief executive who rose to prominence after supporting Trump's unsubstantiated claims that the 2020 presidential election was "rigged" and "stolen" from him.

But equally notable was who was not there. Madison Cawthorn, the outgoing North Carolina congressman who lost his bid for re-election this year after being ousted in the Republican primary, appeared to be the only member of Congress present. Matt Gaetz, the Florida congressman, had been expected to attend but pulled out, blaming the weather, despite clear skies.

Up and running: Donald Trump on stage with his wife, Melania, after announcing another tilt at the White House in 2024
Octavio Jones/Reuters

Also absent were key members of the president's family, including his younger daughter, Tiffany, who was married at Mar-a-Lago just two days earlier; his son, Donald Jr, who was reportedly on a hunting trip out of state; and his eldest daughter, Ivanka, who held a senior advisory role in her father's White House but has sought to distance herself from politics since the January 6 2021 attack on the US Capitol.

Ivanka, whose husband Jared Kushner attended, issued a statement after her father's speech, saying that while she "love[d]" him "very much", she did "not plan to be involved in politics", including his presidential campaign.

"This time around, I am choosing to prioritise my young children and the private life we are creating as a family," she said on her social media channels.

> 'He's announcing he's going to run for president at a low point in his political career'

Her absence underscored how many in Trump's inner circle are wary of his third bid for the White House, as he faces mounting legal challenges while Republicans line up to blame him for the party's disappointing performance in last week's midterm elections.

In a rambling hour-long speech on Tuesday night, Trump sought to play down the results of the midterm elections, which saw the Democrats keep control of the Senate and Republicans handpicked by Trump lose their bids up and down the ballot. Republicans were on course to win control of the House of Representatives but by a much slimmer margin than originally expected.

In Orlando, Florida, several Republican governors were raising concerns about Trump's enduring influence over the party and questioning his decision to run again. "He's doing it from a place of defensiveness, of his own self-opportunity and weakness. He's not at a high point right now. He's at a low point," New Hampshire governor Chris Sununu told the Washington Post on the sidelines of a meeting of the Republican Governors Association. "He's announcing he's going to run for president at a low point in his political career. I don't know how that's going to work out."

After last week's midterms, many national Republicans and high-profile donors have urged Trump to step aside in favour of a newer, younger candidate, Ron DeSantis, Florida governor. He won re-election this month by a 19-point margin in a state Trump won by just 3.4 points two years earlier.

Several polls since the midterms have shown that while Trump still enjoys the support of a critical share of Republican voters, DeSantis's stock has risen.

Trump has not held back in trashing DeSantis, whom he nicknamed "Ron DeSanctimonious". DeSantis, who has yet to declare his own candidacy, has so far demurred when asked to respond.

"One of the things I've learnt in this job is when you're leading, when you're getting things done, you take incoming fire. That's just the nature of it," DeSantis said before Trump's announcement.

"At the end of the day, I would just tell people to go check out the scoreboard from last Tuesday night."

See The FT View;
Edward Luce see Opinion

Election fallout

New York Democrats rue losses that cost party the House

JOSHUA CHAFFIN — NEW YORK

The Republican party's predicted "red wave" failed to materialise in the US midterm elections — except in one unlikely place: deep blue New York.

While they posted lacklustre results elsewhere, Republicans managed to flip four Democratic congressional seats in New York state, an accomplishment that should allow them to take control of the House of Representatives.

In a particularly ignominious defeat for the Democrats, Sean Patrick Maloney, the five-term congressman who chaired his party's election committee, lost his seat in a district north of New York City to Republican state assemblyman Mike Lawler.

The debacle has prompted disbelief among party faithful that New York state, a heartland where they outnumber registered Republicans two to one, was where they ended up so vulnerable.

It has also sparked an ill-tempered round of finger-pointing, with hundreds of Democratic officials signing a letter demanding the resignation of state party chair Jay Jacobs. "The writing is on the wall and has been for some time: Jay Jacobs is not fit to serve as chair of the state Democratic party," it said.

But there are plenty of other culprits, including a bungled redistricting effort and the underwhelming campaign run by incumbent governor Kathy Hochul.

"Firing Jay Jacobs is like firing the coach instead of the players who lost the game," said Ken Frydman, chief executive of Source Communications and a one-time communications director for Rudy Giuliani, former mayor.

One issue has been particularly salient in the post mortem: "Crime," said veteran Democratic strategist Hank Sheinkopf. "Fear of New York City spilling into the suburbs."

According to a Quinnipiac University poll last month, crime was the top issue for New York voters, well ahead of inflation and protecting democracy. Abortion rights may have been less of a factor than elsewhere because they are enshrined in the state constitution.

Lee Zeldin, Republican candidate for governor, made public safety the central focus of an unexpectedly robust campaign. He ended up losing by 5.8 percentage points to Hochul, who was thrust into the governor's mansion last year only after her predecessor, Andrew Cuomo, resigned in a cloud of scandal.

It was the strongest performance by a Republican gubernatorial candidate in New York since 2002 — and even more surprising, considering that Zeldin is pro-life and an ardent supporter of former president Donald Trump.

Alexandria Ocasio-Cortez, the Bronx representative who is a star of the Democrats' progressive wing, blamed Cuomo, saying the party was wedded to a campaign machine constructed by the former governor that favoured lobbyists and big donors over the grassroots.

"Cuomo may be gone but his entire infrastructure . . . and much of the political machinery that he put in place is still there. And this is a machinery that is disorganised, it is sycophantic," she told The Intercept, a news website. "If Democrats do not hang on to the House . . . responsibility falls squarely in New York state."

> 'If Democrats do not hang on to the House, responsibility falls squarely in New York state'

Yet to other observers the seeds of the Democrats' failure in the region were sown months ago, when the party used its dominance of the state Senate to embark on an ill-fated plan to redraw electoral districts in their favour. The map they presented was so skewed that the courts rejected it and appointed a special master to draw a new one that resulted in more competitive districts.

Among those affected was Maloney, who had to run in a redrawn district north of New York City that includes the Hudson Valley, a semi-rural area that has increasingly attracted wealthy residents from the city. Democrats lost another seat nearby, as well as two on suburban Long Island, Zeldin's home.

"The Senate screwed it up," said one former Cuomo aide. "Every Democrat in a statewide race won decisively. Decisively. It's the ones who ended up in these re-cut districts who lost."

Republicans such as Anthony D'Esposito, a former detective who claimed a seat on Long Island President Joe Biden carried by 12 percentage points two years ago, saw their success less as a result of Democratic fumbles than their own disciplined campaign that focused on crime and inflation. "We stuck to the issues that mattered to the people in our districts," he said.

Still, some Republicans, such as Chapin Fay, a former Zeldin campaign manager, remained clear-eyed about the challenges to the party.

"Democrats need to regroup," Fay said, "but [their] voter enrolment advantage is so problematic for Republicans, if we do not start building relationships in [New York City] and with non-Republicans across the state, we will continue to lose statewide."

Space race

Nasa's Artemis Moon mission keeps long-term eye on Mars

RICHARD WATERS — SAN FRANCISCO

A US rocket capable of powering astronauts to the Moon — the first such mission in half a century — blasted off on its maiden voyage yesterday morning, opening a new chapter in American space exploration and intensifying a race with China.

The launch, at 1.48am from the Kennedy Space Center in Florida, came after two previous attempts were called off in August and September because of leaking hydrogen fuel lines.

Nasa reported another leaking valve in a fuel line less than three hours before yesterday's launch, though engineers were able to stop the leak in time to meet a two-hour launch window. Artemis I, the first of four planned missions in Nasa's Artemis programme, sent the Orion space capsule to orbit the Moon before it returns to splash down into the Pacific Ocean in 25 days.

Blast off: Artemis 1 is launched from the Kennedy Space Center, Florida

The third Artemis mission, planned for 2025 at the earliest, is scheduled to take the first woman, as well as the first person of colour, to the Moon. Artemis is also intended to lay the groundwork for a more permanent American presence on the Moon, which will act as a launch pad for future missions to Mars.

The plans were set in motion during Donald Trump's administration, after 12 years of indecision in Washington over the design of a crewed space programme to succeed the Apollo missions of the 1960s and early 1970s.

The decision to return to the Moon was prompted partly by worries that Beijing had started to lay claim to the international leadership in space held by the US since Apollo.

Washington hopes to use a permanent lunar presence to mine frozen water that can be broken down into oxygen and hydrogen, providing fuel for missions further out into the solar system.

See Inside Business and Lex

Look, if you still haven't convinced your board to make a net zero transition plan, it's ok, no need to explain to us.

As long as you can explain to your kids.

Chapter Zero

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Powering ahead US battery sector lifted by push for electric vehicle ecosystem aimed at shaking off China's dominance ➔ COMPANIES

Regulator puts off ruling over EY audit work for Wirecard

- More time sought to conclude probe
- Firm's future in Germany on the line

OLAF STORBECK — FRANKFURT

Germany's audit watchdog has postponed a long-awaited ruling on potential misconduct by EY during its work for collapsed payments group Wirecard, pushing the case into next year.

The ruling by Apas, the auditing regulator, was originally scheduled for October. But after discussing 3,000 pages of a draft document, the five officials in charge of the investigation concluded that they needed more time, people familiar with the matter said.

The final decision has now been scheduled for mid-January and will be crucial for the Big Four firm's future in Germany, the people said.

Apas declined to comment about the investigation, which is not public under German law.

> Apas 'has been pushed to the limit of its capability' in the saga, according to one member of parliament

Wirecard crashed into insolvency in June 2020 after disclosing that half of its revenue and €1.9bn in corporate cash did not exist. EY had given Wirecard's accounts a clean bill of health for close to a decade.

Apas has been probing EY Germany over its Wirecard audits since before the group's insolvency. Some 12 current and former EY employees and the group itself are in its crosshairs over the audits of both Wirecard AG and its subsidiary Wirecard Bank from 2015 onwards.

Fines of up to €500,000 per person and per annual audit can add up to millions of euros should the watchdog conclude that the firm's misconduct stretched over years.

Apas first filed a criminal complaint two years ago against EY partners who were in charge of the Wirecard audits, flagging to public prosecutors that they might have repeatedly violated their professional duties. A separate probe by auditor Rödl & Partner on behalf of a parliamentary inquiry committee last year flagged a number of serious shortcomings in EY's Wirecard audits.

"It's just unacceptable that the investigation is taking so long," said Marc Liebscher, a Berlin-based litigation lawyer and board member of shareholder rights lobby group SdK. "How is it possible that Rödl & Partner's investigation was concluded within six weeks, but Apas does not have a result after two-and-a-half years?"

Matthias Hauer, a member of parliament for the conservative CDU who sat on the inquiry committee, said Apas "has been pushed to the limit of its capability" in the Wirecard saga, adding that such important cases ought to be processed swiftly.

Hauer urged the government to ensure the watchdog had the resources it needed and was an attractive employer for experienced auditors. Almost 30 per cent of posts at Apas, which has a €9.1mn budget, are vacant.

Germany's economic ministry, which oversees Apas, pointed to the complexity of the EY case and the fact that any verdict must be legally watertight.

"All affected individuals are represented by lawyers, who were repeatedly granted the legal right to access all documents and filed comprehensive statements," the ministry said.

One official familiar with the matter said: "A thorough decision is more important than a fast one."

EY said: "The timing of the professional oversight proceedings is a matter of Apas. EY Germany has fully co-operated with Apas from the beginning of their investigation."

On the bandwagon Brookfield buys Whitney smash hits with music royalty investment

Whitney Houston, performing in Manchester in July 1998, sold more than 170mn records — Jon Super/Redferns

ANNA NICOLAOU — NEW YORK

Brookfield Asset Management has acquired the copyright to two Whitney Houston hits as part of a $2bn push into music royalties in partnership with publisher Primary Wave.

The group bought about 60 songs written by Shannon Rubicam and George Merrill, the duo behind "How Will I Know" and "I Wanna Dance with Somebody (Who Loves Me)", for between $50mn and $100mn, said people familiar with the matter. They also performed their own songs as Boy Meets Girl, such as "Waiting for a Star to Fall", released in 1988.

Brookfield is the latest financial giant to enter the song-buying market, having last month announced it would team up with Primary Wave to set up a $2bn vehicle for deals.

Primary Wave did not disclose the price of the Rubicam and Merrill purchase. "It's one of the larger acquisitions we have done," said Larry Mestel, chief executive of Primary Wave, which is managing the Brookfield-funded investment vehicle.

The rise of streaming has transformed the music business, making the royalties generated by songs an appealing investment while interest rates were historically low in recent years. Investors such as Pimco, Blackstone and Apollo have entered or increased their exposure to the market, drawn by consistent cash flows.

As a result, song valuations have soared, although prices have recently fallen due to rising interest rates.

"Prices have softened a bit over the past three months or so, but not at the highest end of the market," said Mestel. "It's like a Basquiat or a Warhol. These are very unique pieces of art that happen to generate substantial income."

Houston, who died in 2012 aged 48, was one of the most successful stars in pop history, selling more than 170mn records. After signing with music mogul Clive Davis, she recorded a string of hits through the 1980s, including the chart-topping album *Whitney*, which included "I Wanna Dance with Somebody".

After buying a 50 per cent stake in Houston's estate in 2019, Primary Wave has been working to boost the income generated through branding and entertainment deals. The group has produced a biopic, to be released next month through Sony Pictures, and attached Houston's name to perfume and cosmetics lines.

Mestel is also working on a Broadway show around Houston's work, and the acquisition of two of her biggest hits is a "big part" of that project.

As part of last month's deal, Brookfield has taken a minority stake in Primary Wave, which owns the songwriting catalogues of Stevie Nicks, James Brown, Ray Charles and others.

Jaguar Land Rover chief to step down after losses

PETER CAMPBELL — LONDON

Thierry Bolloré will step down from Jaguar Land Rover after just two years as chief executive and a run of losses at the Tata-owned luxury carmaker.

Bolloré, the former Renault boss who joined in September 2020, will leave "for personal reasons" at the end of the year, Tata Motors said yesterday.

JLR has notched up pre-tax losses for the past six consecutive quarters, at a time when arch-rivals, including Mercedes-Benz and Porsche, were recording record profits.

The company blamed the global shortage of semiconductors, leading to factory outages and production delays when it last week posted a £178mn loss for July to September on sales of £5.3bn. In the same period, Mercedes posted a €4bn profit on €38bn of revenue.

JLR chief financial officer Adrian Mardell, who takes over as chief executive for now, said last week the company was "behind the clock" on dealing with the chip problem. He said JLR was "working tirelessly" to resolve it.

It has also started prioritising parts for its new Range Rover and Range Rover Sport models, which will help the business's profitability, he added.

"We've been in project changeover over the last 12 months," he said.

A search for a full-time replacement for Bolloré has begun and is being run by Tata in India, according to two people.

Bolloré rose within the ranks of Renault under Carlos Ghosn before becoming chief executive of the French group. He was ousted in 2019.

He joined JLR when it was behind rivals on electric vehicles and set the company's strategy to push into battery models and move further upmarket early last year. Since then, the company has made few announcements on its progress, and is yet to name a long-term battery partner for its electric vehicles.

Part of the delay has come from owner Tata, which is involved in the battery sourcing decision and has been in talks with Britishvolt, the UK start-up that requires rescue funding, according to three people.

"I am immensely proud of what we have achieved together at Jaguar Land Rover over the last two years," Bolloré said yesterday. "The company's transformation and acceleration towards a sustainable, profitable future as a modern luxury business is under way at great pace."

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Britain's space industry needs a strong voice and clear direction

INSIDE BUSINESS
EUROPE

Peggy Hollinger

George Freeman, UK science minister, made a startling admission to a conference of space executives and investors this summer. Several times, he said, he had requested meetings with European commissioners about obstacles to the UK's continued participation in the EU's Copernicus Earth observation programme, as well as the €95bn Horizon research fund. He was ignored each time.

Next week, he will meet European science ministers for the triennial council of the European Space Agency, which is not part of the EU but acts as the bloc's procurement agency. There, Freeman told me, he expects "a strong signal" of support from his counterparts on Copernicus. But is he wasting his time?

The mood in the UK has changed — and significantly. After two years of deadlock due to EU-UK tensions, Britain's space industry has moved on. Attractive contract opportunities have passed by and many feel it is already too late to win those that remain.

"There is no justification at all for staying part of Copernicus," one industry executive told me — someone who until recently was a forceful advocate for participation in the EU-funded programme.

Copernicus has one of the world's most advanced Earth observation, or EO, capabilities, providing free data globally to monitor the environment. The UK has contributed much to the programme, both financially and scientifically. It has been a useful platform for the UK's EO and data analysis expertise — a recent parliamentary report found the UK has some 100 EO companies, the largest number in Europe.

But that expertise could be threatened if the sector relies too much on ESA-managed programmes that feed into EU-controlled projects. Only the EU, not the ESA, can decide on the UK's continued participation.

Many in the UK industry are now calling for the government to reallocate some or all of the €750mn set aside for Copernicus into a flagship national space project.

The ESA is acutely aware of the UK's frustration, which has coloured its preparations for next week's council of ministers where it will demand a huge budget boost. The agency must find innovative ways to meet UK demands for greater benefits from its ESA contributions — expected to rise marginally for the next budget period — while delivering for an increasingly assertive EU. The council will be a test of whether the agency can navigate that difficult triangle.

> If the government wants a vibrant and growing space sector, it will have to address the incoherence of its own ambition

But this does not solve the bigger problem of the UK space industry, which is that after being forced out of navigation service Galileo, and with a Copernicus exit looming, it no longer has operational programmes to bid into, nor a framework to deliver them.

This makes the funds allocated to Copernicus look tempting. A national programme could focus on the rapidly growing commercial space sector's areas of interest — such as active space debris removal and in-orbit satellite servicing. Or the UK could leverage its data analytics expertise to complement Copernicus. After all, the economic benefit is not only to be found in collecting and transmitting data, but in how that data are used.

Setting up a flagship UK programme should not mean a rejection of collaboration with Europe or the ESA, through which some 75 per cent of the UK Space Agency's budget is channelled. The UK is still ESA's headquarters for space-based telecommunications programmes. France, Germany and Italy all have well-funded national space programmes that work with the agency, as well as through bilateral arrangements with other countries. And they are the three biggest contributors to ESA, far bigger than the UK.

Any UK programme would benefit from continued research partnerships through ESA, which has a deep bench of expertise. But, says Alice Bunn, president of UKspace, the trade body, "you can't just invest in R&D and expect to become a major space player".

Yet Britain's ability to manage a national operational project any time soon is debatable. A parliamentary committee this month was scathing about the government's national space strategy, which not only lacked identifiable funding but "specifics and a clear programme of work". The approach to space policy across government was deemed "disjointed and unclear".

If the government truly wants a vibrant and growing space sector, it will have to address the incoherence of its own ambitions before launching into the unknown.

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FT FINANCIAL TIMES

Automobiles

Musk defends $50bn Tesla pay packet

Billionaire tells court he needed to fund ambition of populating new planets

JOE MILLER — NEW YORK
ALEXANDRA SCAGGS — DELAWARE

Elon Musk argued for an unprecedented multibillion-dollar pay packet at Tesla so that he could fund his ambition of making humanity a "multi-planetary" species, according to testimony from the world's richest man in a court case challenging his remuneration at the electric-car maker.

"If I over-allocate time to Tesla . . . I am not sure that would serve the greater good," Musk said he told board members during negotiations over a record-breaking package worth upwards of $50bn. The entrepreneur contended that the money would help him build his rocket company SpaceX, which hopes to eventually help colonise Mars.

Musk's testimony came on the third day of proceedings in a Delaware case in which he, Tesla and some company board members face claims from investors that the 2018 package was excessive and enriched Musk at their expense.

Under cross-examination from the plaintiffs' lawyer Greg Varallo, Musk denied he was in any meeting of Tesla's compensation committee in which the "substance" of the terms of his pay deal were discussed. But he acknowledged he attended the first board meeting where his package was formally discussed, on June 6 2017.

In a pre-trial deposition, Musk had characterised part of the decision-making process as "me negotiating against myself". The shareholders who sued

> Shareholders who sued had argued the board was 'supine' and in effect following orders

had argued the board was "supine" and in effect following orders from the company's hands-on chief executive.

Musk also testified that he did not seek clearance from the Tesla board for a number of material announcements, mostly made via Twitter, about how much the company's stock should be worth, and about the rise or fall in supply chain costs facing the manufacturer.

The 51-year-old — who said he flew into Delaware on a red-eye flight from the California headquarters of Twitter, the social media company he recently bought for $44bn — told the court that nobody on Tesla's board objected to him drafting in some of the public company's engineers to examine the state of the software at his new acquisition.

Fewer than 50 Tesla staff were brought in on a voluntary basis to evaluate some of the engineering, Musk said.

In response to questioning by Varallo, Musk also contradicted his own lawyers' description of him as being "intimately involved in all aspects of Tesla's operations, from its strategic direction to its product design", in their pre-trial argument for the billionaire being deserving of his pay. "I am not sure I would use the word intimately," Musk said.

During questioning by his lawyers, Musk defended the profitability and stock price milestones built into the share options package, arguing that given how Tesla was faring at the time, there was no guarantee he would ever achieve those goals.

"They universally thought it was impossible," Musk said of media reports and market sentiment in 2018. "I think we were the most shorted stock in the history of the stock market, ever".

Tesla's market value ballooned by more than 1,200 per cent to a peak of almost $700bn in the period since the award was voted through, although that has fallen to under $600bn.

Banks

Goldman pays partner more than $12mn over misogyny complaint

JOSHUA FRANKLIN AND
JAMES FONTANELLA-KHAN — NEW YORK

A Goldman Sachs partner accused several executives, including chief executive David Solomon, of making misogynistic comments in a complaint that resulted in the Wall Street bank paying her a settlement totalling more than $12mn, according to people familiar with the matter.

Goldman paid the long-serving executive the settlement before she left the company in 2020 in an effort to keep the allegations secret, the people said.

The allegations and settlement, which was agreed two years ago, were first reported by Bloomberg.

"Bloomberg's reporting contains factual errors, and we dispute this story. Anyone who works with David knows his respect for women, and his long record of creating an inclusive and supportive environment for women," Goldman general counsel Kathryn Ruemmler said in a statement.

The bank declined to comment further on which errors Ruemmler was referring to.

Solomon was not the target of the complaint, but the salacious details referenced in it included an alleged remark he made to colleagues that he was the only person in the room who

> Wall Street banks have struggled to recruit and retain female and minority employees

had received oral sex the night before, the people familiar with the matter said.

Most of the alleged incidents occurred in 2018, the year Solomon became chief executive, and 2019.

Supporting her case, the partner had audio recordings of some of the comments by Goldman executives referenced in her complaint, two of the people familiar with the matter said.

The partner who made the accusations declined to comment.

The revelations come at a difficult moment for Solomon, who is four years into the chief executive job and last month announced his second major restructuring of the bank as he battles to close a stock market valuation gap versus its peers.

Solomon has also faced questions internally over his ostentatious style, which has included high-profile DJ-ing appearances and his request for Goldman to purchase two private aircraft.

The complaint highlights the degree to which Wall Street banks have struggled to recruit and retain female and minority employees in an industry still dominated by white male executives. The chief executives of five of the six biggest US banks by assets are white men.

Earlier this year, another former Goldman employee, Jamie Fiore Higgins, published a memoir of her 17 years at the bank in which she alleged she suffered bullying, discrimination and manipulation.

Solomon has talked publicly about trying to diversify Goldman's workforce and in 2019 published a set of hiring targets. Last week, the bank elevated a record number of female and black employees to its elite partner ranks.

Technology. Compliance

EU's online laws turn up heat on Twitter

Officials are concerned about an exodus of staff responsible for regulation and user safety

JAVIER ESPINOZA — BRUSSELS

Twitter is said to be on a "collision course" with Brussels as the social media platform faces new scrutiny under EU laws to police Big Tech that came into force yesterday.

European regulators had grown particularly concerned following chief executive Elon Musk's rollout of flagship premium subscription service Twitter Blue, according to three people with knowledge of their thinking, which saw its blue-tick feature abused by impersonators.

Officials are also worried about the number of Twitter executives who have left the company and had a role in dealing with regulators and the platform's implementation of EU rules aimed at curbing the spread of illegal content online.

The Digital Services Act, which sets for the first time the rules on how Big Tech should keep users safe online, came into force yesterday in the first big overhaul of the laws governing their operation in more than two decades.

"The DSA will require Twitter, as a very large online platform, to have massive technical and legal compliance," said a person with knowledge of the situation. "Many of these people have left or were laid off. It seems they are on a collision course with Brussels."

The EU was yesterday due to kick-start its designation of which platforms meet the threshold of at least 45mn users and will have to adhere to the most stringent rules. This process will last four months.

Twitter was expected to be in this category, said two people with knowledge of the rules.

Christel Schaldemose, an MEP who will chair a group on DSA implementation, said Twitter could "very well be the case to test DSA for the first time".

She said: "If the EU is not making sure that DSA rules apply for Twitter, then it would be a failure. I hope and expect the EU commission to act fast and firmly."

Twitter representatives were expected to meet EU officials later this month to discuss what the rules meant for the platform, according to two people with knowledge of the matter.

Given the job losses, it was unclear who was likely to attend on the Twitter side and if the company would stick to its previous "conciliatory line" to follow "one rule rather than [a] million different ones", one of these people said.

But if Musk failed to address concerns over a growing number of fake profiles and trolls on the platform, Twitter could risk being banned by Brussels as part of the rules, they warned.

The DSA gives the European Commission the power to ask a judge — in this case Ireland, where Twitter has its European headquarters — to block its use from the single market.

Twitter faces fines of up to 6 per cent of its turnover if it is found to be a repeat offender.

Brussels can order Twitter to change its behaviour and fine it periodically until the behaviour stops.

Margrethe Vestager, the EU's executive vice-president in charge of competition and digital policy, and Thierry Breton, the commissioner in charge of the internal market, are rushing to make sure they employ enough staff to enforce the rules.

The commission said: "We have always been clear that we expect all platforms to comply with their commitments under EU law and rules."

Regulators have become increasingly concerned about the number of Twitter executives who have departed who held key safety positions after Musk cut half of the company's 7,500-strong workforce.

Brussels officials are also worried that the axing of some moderating staff will affect the platform's ability to police its online content.

Meanwhile, Twitter has cut its Brussels team to just two people.

Executives who have recently left include chief compliance officer Marianne Fogarty and chief privacy officer Damien Kieran, who also held the position of data protection officer — a critical contact point for EU regulators.

Twitter attempted to allay some concerns about its compliance with privacy rules this week in a meeting with the Irish Data Protection Commission, the lead European privacy watchdog.

Graham Doyle, Ireland's deputy data protection commissioner, said Twitter had installed an acting data protection officer and told him they had no intention of changing the "decision-making process around the processing of EU users' data" outside Ireland.

Doyle said that the DPC would continue to monitor the situation and that Ireland would continue to be Twitter's main supervisor.

Twitter did not respond to a request for comment.

Additional reporting by Jude Webber in Dublin and Cristina Criddle in London

EU antitrust chief Margrethe Vestager and internal market boss Thierry Breton aim to ensure they have enough staff to enforce rules. CEO Elon Musk, left, has cut half of Twitter's jobs
FT montage/Bloomberg; Adrees Latif/Reuters

Automobiles

Ford chief warns of jobs risk in electric switch

CLAIRE BUSHEY — CHICAGO

Making electric vehicles will require 40 per cent fewer workers than building cars and trucks powered by petrol, the chief executive of Ford has declared, saying the carmaker needs to produce more parts in-house so that "everyone has a role" in the transition.

Jim Farley warned late on Tuesday of "storm clouds" in the next phase of switching to EVs. His company has set a goal of half of global sales coming from EVs by 2030, part of a broader shift among manufacturers.

"It takes 40 per cent less labour to make an electric car, so . . . we have to insource so that everyone has a role in this growth," Farley said at a conference in Detroit focused on improving racial diversity in the auto industry.

"We have a whole new supply chain to roll out, in batteries and motors and electronics, and diversity has to play an even greater role in that," Farley told civil rights activist Jesse Jackson, whose Rainbow Push Coalition sponsored the conference.

The transition to electric vehicles is widely expected to reduce the number of jobs in the auto industry because they are assembled from fewer parts compared with cars powered by internal combustion engines.

The sector has been heavily unionised for decades, paying wages that placed blue-collar workers in the middle class. The United Auto Workers union estimated in 2018 that the transition to EVs could cost 35,000 jobs out of the 400,000 workers it represented.

Potential job losses have been predicted elsewhere too. A report from a German working group found the country's car sector could lose 400,000 jobs over the next decade amid a shift to electric power.

Farley has said since July that Ford has "too many people". In August, it cut 3,000 employees and contract workers, with executives calling the company's cost structure "uncompetitive" compared with other carmakers. Ford had 183,000 employees at the end of 2021.

Carmakers' traditional supply chains are gradually being replaced with the production of batteries, the most valuable components of electric cars or trucks. Tesla and Panasonic have worked together since 2014 to build batteries at the electric carmaker's first gigafactory in Nevada.

Ford and General Motors have partnered with battery makers SK Innovation and LG Chem, respectively, to build factories in the US to supply batteries for their expanding EV offerings.

A shift in corporate strategy towards more vertical integration at Ford would hark back to the company's early days, when founder Henry Ford owned forests, iron mines, limestone quarries and even a rubber plantation in Brazil to wholly control the company's supply chain.

"If Henry Ford came back to life he would have thought the last 60 years weren't that exciting but he would love it right now because we're totally reinventing the company," Farley said.

Insurance

Zurich boss sets 'record' 3-year profit target

IAN SMITH
INSURANCE CORRESPONDENT

Zurich chief executive Mario Greco has thrown down the gauntlet to rivals, issuing a three-year profit target for the European insurance group that he said peers would struggle "to replicate or imitate".

The insurer, one of Europe's biggest by market value, increased its targets at an investor day yesterday, including delivering a return on equity of more than 20 per cent between 2023 and 2025.

"We, frankly, think that this will be record profitability in the insurance industry and this is something that it will not be easy for others to replicate or imitate," he told the Financial Times.

The target for the previous three-year period was to exceed 14 per cent return on equity — an annualised measure based on operating profit after tax.

But that is equivalent to nearly 18 per cent under new accounting rules.

Greco, who joined the group in 2016, said the potential for acquisitions was not baked into the plan but the insurer had the firepower to pursue this if needed.

"If we find something which is worth considering and it is accretive to our return on equity target, we go for it, and we definitely have the financial lever to do that," he said.

Zurich's shares rose more than 2 per cent yesterday against a slight fall in the Stoxx Europe 600 benchmark index.

The insurer is now targeting earnings growth of 8 per cent a year, an enhancement on its more than 5 per cent target for the previous three-year term. It highlighted margins in its property and casualty business and profits in the life division as areas for growth.

Mario Greco: 'We, frankly, think this will be record profitability'

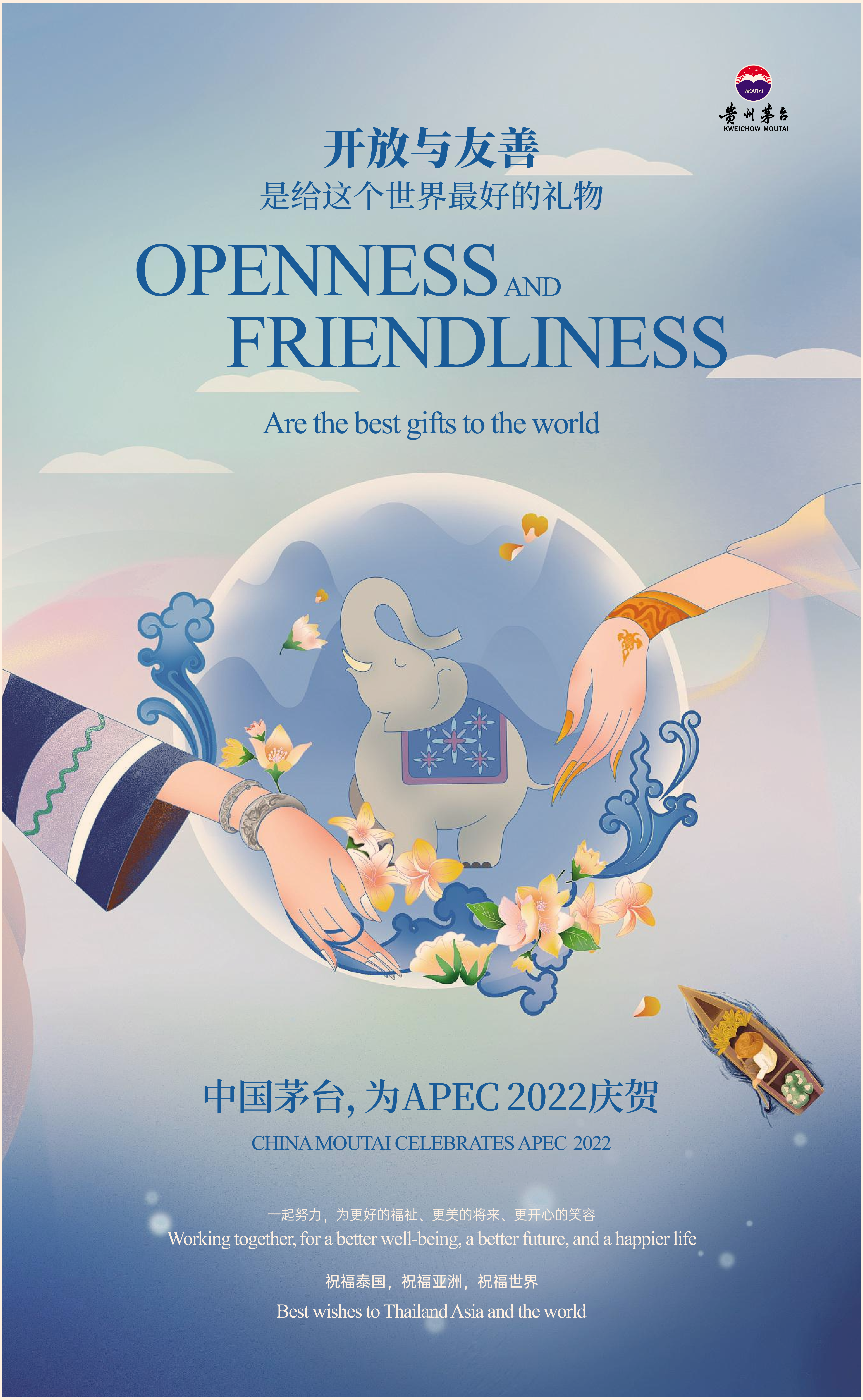
At a time of rising commercial insurance prices, Greco said he thought its growth in retail insurance would outpace commercial business over the next few years — Zurich has added 4.6mn retail customers since 2019.

The insurer said it was on track to exceed its 2020-22 targets. It also increased its cash generation target, aiming to generate more than $13.5bn of cash by 2025, an enhancement on its previous $11.5bn goal but below the about $15bn analysts were hoping for.

Zurich has retained a target solvency ratio — capital as a percentage of the regulatory requirement — of at least 160 per cent.

A surge in natural catastrophe payouts after the destruction wrought by Hurricane Ian has added to pressure on this area of insurance.

Zurich estimates a net pre-tax impact from the storm of $550mn.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Best wishes to Thailand Asia and the world

Billions flow to nascent US battery sector with push from climate law

Industry is supercharged by a White House measure that also aims to reduce reliance on China

HARRY DEMPSEY — LONDON
MYLES MCCORMICK — NEW YORK

For much of the past century a small corner of North Carolina supplied the vast majority of the world's lithium before cheaper competition from abroad took away its crown.

Investment is now flowing back into the region. Livent, a chemicals group, this week completed an expansion of a lithium hydroxide refinery in Bessemer City, North Carolina. The project increased US production capacity for first time in more than a decade of the compound used in lithium-ion batteries that power electric vehicles.

Lithium is not the only part of the battery supply chain in line for an influx of investment. As the US looks to build an EV ecosystem from the ground up and dislodge control of the market from China, money is pouring into everything from graphite plants and cobalt refineries to battery gigafactories.

Companies are positioning themselves to supply an EV market set to boom, with US sales predicted to more than double to almost 2.5mn vehicles by 2025, says consultancy Rho Motion. President Joe Biden wants half of vehicle sales in the US to be electric by 2030.

"You don't need to be brave or ambitious to say: 'We will play a role in that future growth'," said Paul Graves, chief executive of Livent.

Biden has thrown the weight of the government behind the buildout of the US battery supply chain as he looks to achieve a triple goal of combating climate change, boosting manufacturing jobs and reducing reliance on China.

In August he signed the Inflation Reduction Act, the US's biggest piece of climate legislation, which will provide tax incentives to companies that develop mines, processing sites, battery plants and EV factories in the US.

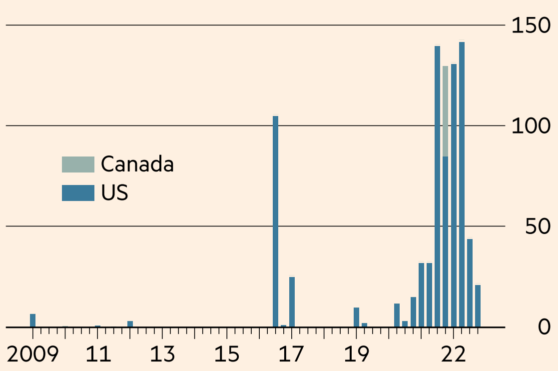
The law has turbocharged interest in US battery supplies, with companies committing about $13.5bn of investments since it was enacted compared with $7.5bn in the three months before, according to Benchmark Mineral Intelligence. Analysts at Cowen estimate more than $91bn will be pumped into the US battery industry in the coming decade as a result of the legislation.

"Whereas people were considering domestic manufacturing for a variety of reasons before, the credits now make it a potentially more attractive place than any other," said Sarah Morgan, co-head of the M&A and capital markets practice at Vinson & Elkins, a law firm.

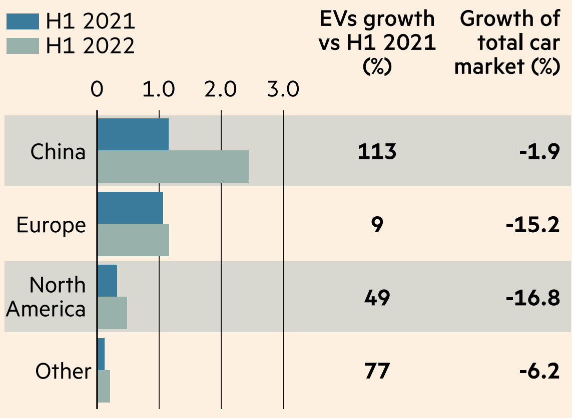
The government has taken other steps to foster EV battery development. Under the Bipartisan Infrastructure Law, passed last year, the US handed out $2.8bn of grants to about 20 companies to support construction of everything from lithium refineries to graphite production plants. The government projects this will draw total investment of $9bn when combined with private sector funds.

Among the recipients were Solvay and Orbia, the chemicals groups, which plan to construct a $850mn polyvinylidene fluoride plant in Georgia by 2026.

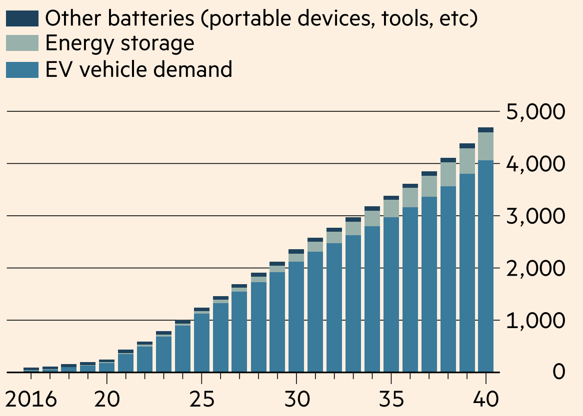
North America boom
Battery plant manufacturing announcements, capacity (GWh)



EV sales hold up in weak car market
EV sales by region (mn)



Battery demand projections
GWh



Sources: S&P Global Commodity Insights; EV-Volumes H1 2022 aggregate sales/registrations by country; Barrenjoey Research estimates; WoodMac

Livent has completed expansion of its lithium hydroxide plant in Bessemer City, North Carolina

The material will be used as a lithium-ion binder and separator coating in batteries, giving the US another link in the complex EV supply chain.

"The time has come for the US," said Ilham Kadri, Solvay chief executive. She added that the US has been far more aggressive than Europe in supporting a local battery supply chain. "Geopolitically, the difference is they support manufacturing and localising it."

Biden has framed his green push as a way of tackling climate change, creating domestic jobs and also competing with China, the dominant player in the global battery supply chain today.

China is home to more than half of the world's lithium, cobalt and graphite refining capacity. In battery parts, it has 75 per cent of cathode capacity, 85 per cent of anode capacity and 73 per cent of cell manufacturing capacity, according to analysts at Cowen.

"By undercutting US manufacturers with their unfair subsidies and trade practices, China seized a significant portion of the market," Biden said last month. "Today, we're stepping up to take it back [with] bold goals and actions to make sure we're back in the game in a big way."

To reduce US dependency on China for cobalt, EVelution Energy, a project developer, is building a $150mn-$200mn refinery in Arizona that can meet 40 per cent of the needs of domestic EV production by 2027 and will be supplied with feedstock by Trafigura, the global commodity trading house.

Socrates Economou, head of nickel and cobalt trading at Trafigura, said that the $7.5bn of funding in the Inflation Reduction Act for tax credits, equivalent to 1mn EVs at the full subsidy of $7,500 a car, sends a powerful message to auto companies and their suppliers — but any tangible impact would take time.

"As an initial statement, the IRA underlines what America's target is. It will reward supply or refined product that doesn't pass through Russia or China. We will see much more refining capacity coming online in the west but it can't happen within two or three years," he said.

The law's raw material and component domestic sourcing rules have sparked trade tensions with South Korea as well as the EU, which has argued that the tax credits violate World Trade Organization rules.

Some argue the sheer force of demand would have drawn money to the sector even without government support. "A lot of the investment decisions were made four years ago," said Graves at Livent. "I think they predate efforts by the US government to get involved."

> 'We will see much more refining capacity coming online in the west but it can't happen within two or three years'

The US is forecast to have about 920 gigawatt hours of annual battery manufacturing capacity by 2031, the year the IRA tax credits are set to expire, according to Cowen. European gigafactories are on track for a total capacity of 1,186 GWh by that time. But China is still set to dominate the space, with 5,153 GWh of capacity.

This year alone 338 GWh of new US battery manufacturing capacity has been announced, according to data from S&P Global Commodity Insights, more than the past four years combined.

By passing the IRA and infrastructure act "the Biden administration has basically seized the bull by the horns", said Sanjiv Malhotra, chief executive of Sparkz, which is building a battery plant in rural West Virginia that will hire coal miners displaced as use of the fossil fuel declines.

"There is a race going on in terms of electric mobility . . . and if the US is to have a leadership position, it only has the next three to five years to establish it. If we are going to continue to depend on China for batteries, I think they basically can kiss it goodbye," he added.

Technology

Shareholders in Tencent set to be handed majority of its Meituan stake

ELEANOR OLCOTT — HONG KONG

Chinese technology group Tencent yesterday said it would "distribute" the majority of its $22bn stake in Meituan, a food delivery company, as a dividend to investors, as it works to reduce its holdings in the country's tech sector.

Tencent's quarterly revenue fell for a second quarter, underscoring the toll of Beijing's bruising regulatory crackdown on the country's internet sector and the impact of slowing economic growth in the world's second-largest economy.

The tech group posted quarterly revenue of Rmb140bn ($19.7bn) in the three months ending September 30, down 2 per cent from the same period last year and slightly missing analysts' forecasts of Rmb141.4bn. Tencent's net profit increased 2 per cent to Rmb32.3bn.

"Our resilient businesses, diversified cash flows, sizeable cash balance and substantial investment portfolio enable us to invest in strategic growth areas and innovation, while at the same time returning capital to shareholders," said Tencent chair Pony Ma.

"We will distribute the large majority of our Meituan shareholding, which has generated significant returns, both strategically and financially."

Tencent will issue $20bn of Meituan shares in March 2023 to shareholders to reduce its exposure to China's tech sector. The Financial Times reported in September that Tencent was planning on divesting Rmb100bn of its $88bn listed equity portfolio, including stakes in Meituan. At the time, Tencent said it "did not have any target amounts for divestments".

Tencent has accelerated share repurchases this year, returning cash to shareholders as its stock price hovers at a four-year low. This year Tencent has repurchased $13bn of its shares.

Analysts said Tencent's share buyback programme had prevented further share price slides. A recent rally in Chinese equities due to Beijing loosening its strict zero-Covid policy and offering support to the property sector has bolstered sentiment.

"A lean, optimised operation combined with potential revenue acceleration ahead — driven by top-down factors such as macro and regulations — is a good set-up that investors will like," said Charlie Chai, an analyst at Shanghai-based 86 Research.

Tencent is battling the twin challenges of weak consumer confidence following successive rounds of pandemic lockdowns in China and a wave of new regulations that loosened the grip of its tech empire.

Analysts suggest officials may be taking a softer approach to the gaming sector after regulators restricted children's playing time and halted approvals for new game titles last year.

In September, Tencent won its first licence for a new gaming title since June 2021, easing investor concerns about the dearth of approvals granted to Chinese internet groups.

Additional reporting by Nian Liu in Beijing and Cheng Leng in Hong Kong

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Legal Notices

NOTICE OF APPLICATION
IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES, INSOLVENCY AND COMPANIES LIST (ChD), CASE NO. CR-2022-002529
IN THE MATTER OF VG LIQUIDATION LTD (CRN: 07476031) (the "Company")
AND IN THE MATTER OF THE INSOLVENCY ACT 1986
AND IN THE MATTER OF THE COMPANIES ACT 2006
PLEASE TAKE NOTICE THAT:
(1) VG Liquidation, Inc Et Al Liquidating Trust (In Bankruptcy and acting by its Trustee Thomas A Pitta (the "Trustee")) and (2) Scott Andrew Ferber, Director of the Company, have issued a claim form (the "Claim") in the High Court of Justice, Business and Property Courts of England and Wales, Case Number CR-2022-002529, seeking an order on the following terms:

1. The Company be restored to the register of Companies pursuant to section 1029(2)(f) of the Companies Act 2006;
2. the High Court approve and/or recognise the Amended Joint Chapter 11 Plan of Liquidation of the Plan Debtors dated 15 May 2021 (the "Chapter 11 Plan") and Findings of Fact, Conclusions of Law and Order Confirming Amended Joint Chapter 11 Plan of Liquidation of the Plan Debtors as of May 15, 2019; and
3. the High Court agree for HSBC Bank to transfer funds currently held by HSBC in the Company's bank account to the Company and/or DWF Law LLP (acting for the Claimants) once the Company has been restored, to enable the Trustee to distribute the funds in accordance with the terms of the Chapter 11 Plan.

The Claim will be heard at the High Court of Justice, Business and Property Courts of England and Wales by MS Teams on Tuesday 13 December 2022, at 14:30 hours (GMT) (or as soon thereafter as the Petition can be heard). Any creditor of the Company who wishes to attend the hearing of the Claim Form (whether to support or oppose it) should give notice of intention to do so to the Claimants' Solicitors by no later than 16:00 hours (GMT) on Friday 9 December 2022 so that the Claimants' Solicitor can provide details of the hearing and notify the Court of the creditors' intention to attend. The Claimants' Solicitor is DWF Law of 5 St Paul's Square, Old Hall Street, Liverpool, L3 9AE, Telephone: +44 7709 502256, Email: Thomas.Murphy@dwf.law (Reference number: 17220/2020275-4). A copy of the Claim Form and supporting evidence may be obtained by recognised creditors of the Company by written request to Mr Thomas Murphy at the email address above.

Travel & leisure

Airbnb in fresh effort to bolster room supply

DAVE LEE — NEW YORK

Airbnb chief executive Brian Chesky is making a renewed push to increase room supply on the travel platform, with the average price per night having soared more than 40 per cent above pre-pandemic levels.

Chesky said he was "not satisfied" with the inflated cost of using the short-term accommodation site, laying out measures to address the problem, including a move to pay existing hosts to help new ones join the platform, as well as longer-term plans to reduce cleaning fees.

The average daily cost of a stay on Airbnb was $156 in the July-to-September period, up 5 per cent on 2021 and a rise of more than 40 per cent compared with 2019. "If you're looking for a city on a certain day, kind of last minute, that's not nearly what we'd want," Chesky said. "So I'm not satisfied; I'd like it to become more affordable."

The renewed push to increase supply comes just six months after Airbnb revamped its website in an effort to entice tourists to locations where it has more places to stay, as it sought to ensure pent-up demand is not held back by supply issues.

Chesky said the rise in rental rates continued to be driven by supply constraints in popular locations but also a dramatic spike in the cost of cleaning fees added to customers' bills. "Cleaning fees is the biggest issue," he said. "You expect one thing, you get another . . . the overall 'Wow, why does this cost x?'"

According to external data from AirDNA, average cleaning fees for short-term rentals were up 28 per cent in October 2022 compared with the same month in 2019. In urban areas, the increase has been almost 50 per cent in that same period.

As well as recently changing Airbnb's interface to show cleaning charges upfront, Chesky said that, longer term, the company was considering launching a marketplace that would allow local cleaning providers to compete against each other more directly in an attempt to reduce rates. Supply on the site has shown signs of picking up, with active listings up 15 per cent on last year, though most new locations were in non-urban areas, according to recent company filings.

Brian Chesky's spacious home in San Francisco is now available on Airbnb

Airbnb this week launched several service updates to further increase the number of available rooms and properties. The company also said it would verify the identities of all Airbnb customers by spring 2023. Insurance cover has been increased to $3mn, and now includes things such as hosts' parked cars, or boats, at the property.

Among the new hosts joining the platform is Chesky himself, whose San Francisco home is now among those listed. Vetted guests will be able to stay while Chesky is there, but not pay a fee.

"There'll be security there, [but] it'll be pretty low-key," Chesky said, describing it as both a publicity stunt and an effort to stay "in touch".

While travel stocks have been somewhat insulated by the broader market downturn thanks to post-lockdown demand, Airbnb's share price has fallen 38 per cent since the start of the year amid broader fears over consumer spending power and a possible recession.

Chesky said Airbnb had no plans to freeze hiring or change its recruitment plans amid a move by tech groups in recent weeks to cut jobs.

Automobiles

Tesla's former Australia chief pleads guilty to insider trading

HARRY DEMPSEY

The former head of Tesla's Australian operations has pleaded guilty to insider trading after buying shares in a lithium producer based on knowledge that the electric-car maker had a supply agreement with it, according to the country's securities regulator.

The Australian Securities & Investments Commission said yesterday that Kurt Schlosser, the former Australia director for Tesla, acquired 86,478 shares in Piedmont Lithium after receiving inside information about a supply deal between the two groups.

Schlosser later sold shares in Piedmont for a net profit of A$28,884 ($19,583) after the lithium producer's share price shot up when news of the supply deal with Tesla was made public.

He also shared the information with a friend who would be likely to buy shares in the now North Carolina-based mining group, the watchdog added.

Piedmont announced in September 2020 it had entered a binding five-year agreement to supply Tesla with a third of its planned 160,000 tonnes a year production of spodumene concentrate, a hard rock ore product that is converted into battery-grade lithium chemicals. The deal sent its shares six times higher.

The agreement was one of the many that carmakers have signed with mining groups. For carmakers, it helps to secure access to raw materials, bring down procurement costs and have greater oversight over the environmental and social impact of their supply chain. For early stage mining groups such as Piedmont, the backing of a big global carmaker can help unlock financing from lenders.

The US mining group had aimed to deliver the concentrate between July 2022 and July 2023 for Tesla to process. However, last year it postponed deliveries to Tesla indefinitely because of delays in the permitting process for its mine in North Carolina.

Piedmont is dual-listed in Australia and the US. The company redomiciled from Australia to the US and changed its primary listing to New York last year.

Piedmont Lithium said it did not comment on legal proceedings. Tesla did not respond.

Schlosser is yet to be sentenced and will appear at Sydney District Court on December 16. The ASIC said the maximum penalty for insider trading violations was 15 years in prison.

Additional reporting by Peter Campbell

Fixed income. Transparency

Treasury official proposes to make more bond data public

Nellie Liang, under-secretary of domestic finance at the Treasury department, has proposed that transaction data for the most widely traded Treasury bonds be made public on a daily basis
Win McNamee/Getty/Bloomberg

Liang plan comes as calls grow for sweeping reforms to $24tn US government debt trade

KATE DUGUID — NEW YORK
COLBY SMITH — WASHINGTON

A top official at the Treasury department has proposed sweeping changes to the way transactions in the $24tn US government bond market are disclosed as calls grow to improve the transparency and resiliency of what is considered the world's most important financial market.

Trading in the Treasury market is notoriously opaque — and regulators and investors have long suggested that more insight into the market would improve investor confidence, help officials spot problems sooner, and more generally bolster functioning and stability in the market.

The comments were made by Nellie Liang, the under-secretary of domestic finance at the department, at a conference yesterday hosted by the New York Fed about the Treasury market.

The Treasury department official is proposing that transaction data for the most widely traded Treasury bonds — so-called on-the-run bonds — be made public on a daily basis, with some limits on reporting expected, based on trade size.

After some experience with this level of reporting, Liang said that they would consider releasing data about other bonds.

"The work to improve data quality and availability in the Treasury market was developed to support the official sector's ability to assess market conditions and preparedness to respond to market stresses, and also to provide transparency that fosters public confidence, fair trading, and a market ecosystem that provides for more resilient and elastic liquidity," said Liang.

The smooth functioning and resilience of Treasury market has been the primary focus at yesterday's conference, at which John Williams, president of the New York Fed, earlier said malfunctioning financial markets risk undermining the effectiveness of the Fed's monetary tightening efforts.

Williams underscored the need for the central bank to press ahead with its aggressive push to tame historically high inflation — which has included steep interest rate increases and a rapid wind-down of its roughly $8tn balance sheet — while simultaneously finding solutions to strengthen the resilience of the financial system.

"For monetary policy to be most effective, financial markets must function properly," he said. "Monetary policy influences the economy by affecting financial conditions, with the Treasury market at the centre of it all. If the Treasury market isn't functioning well, it can impede the transmission of monetary policy to the economy."

He added: "The time is now to find solutions that strengthen our financial system without compromising our monetary policy goals."

Wednesday's conference comes at a tenuous time for the world's most important bond market.

Liquidity, or the ease with which traders can buy and sell bonds, has materially deteriorated as the Fed has aggressively tightened monetary policy this year in order to rein in inflation.

Treasury yields move with interest rate policy and the volatile action in yields this year, along with the uncertainty about the Fed's future path, has made it harder and more expensive to buy and sell bonds.

The concern is that poor liquidity could lead to even more pronounced market volatility, increasing the odds of a financial accident.

Further undermining the functioning of the Treasury market, from which all securities are priced, is a set of long-standing structural shortcomings that have meant that shocks in what should be a global haven have become commonplace.

That has prompted repeated calls for a regulatory overhaul — something that the Fed, the Treasury department, the Securities and Exchange Commission and the Commodity Futures Trading Commission have sought to advance since a "flash crash" in 2014 in which prices across all maturities whipsawed dramatically.

The fragility of the market was most recently exposed in March 2020 when pandemic fears ignited a chaotic dash for cash that sent prices whipsawing. That made it almost impossible to trade with brokers' screens at times going blank as liquidity evaporated and the Fed was forced to intervene.

'As we saw with UK gilts markets, when the central bank had to step in, it had a broadly negative impact'

Williams yesterday acknowledged that both the size of the Treasury market has dramatically increased in recent decades and that market participants that were once major players have retreated, which has contributed to past market shocks, previous research has shown.

Also yesterday, US lawmakers pressed Michael Barr, the Fed's vice-chair for supervision, about how regulation has impaired Treasury market liquidity and what reforms are needed to stave off further shocks.

"As we saw with UK gilts markets, when the central bank had to step in to prop up that market, it had a broadly negative impact," said Patrick McHenry, a Republican member of the House of Representatives, at a House financial services hearing.

"We do not want to see that in our Treasuries market, and it's my hope that you can address this before we have some unfortunate event that could have severe consequences," he added.

In response to McHenry's question about the supplementary leverage ratio, which requires large banks to hold capital equal to at least 3 per cent of their assets, Barr said the Fed was reviewing that requirement.

Ann Wagner of Missouri also grilled Barr about Treasury market liquidity.

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Crypto

Bahamas concludes its oversight is rigorous after FTX failure

SCOTT CHIPOLINA — NASSAU

The Bahamas could not have prevented the failure of digital asset exchange FTX and has found no "deficiencies" in its crypto regulations, the country's prime minister told parliament yesterday.

Philip Davis said his country did not have sole oversight of FTX's worldwide operation, and investigations into the collapse of Sam Bankman-Fried's crypto empire would be of "national importance".

The failure of Bahamas-based FTX last week has left its clients facing potentially huge losses while eroding market confidence and triggering fears that the collapse will spread across the industry and engulf other leading companies.

Authorities in the Caribbean nation, where Bankman-Fried lived, are investigating FTX, which used its Bahamas base to build a crypto derivatives trading operation that accepted money from thousands of customers worldwide.

FTX was regulated by the Securities Commission of the Bahamas and cited the island nation's crypto-friendly regime as a reason for switching from Hong Kong last year.

'We have not identified any deficiencies in our regulatory framework that could have avoided this'

"Based on the analysis and understanding of the FTX liquidity crisis to date, we have not identified any deficiencies in our regulatory framework that could have avoided this," Davis said in prepared remarks.

He added that the Bahamas securities regulator was able to "take the immediate steps" because the country already had a regulatory framework for digital assets in place.

Davis said that FTX-related probes "are to be of the highest order and given precedence, given the amounts involved and because committed and rigorous oversight is of national importance. We will be co-ordinating these efforts with duly appointed authorities in other jurisdictions."

FTX said in court filings that it was in contact with US federal prosecutors, the country's main securities and derivatives regulators and "dozens of federal, state and international regulatory agencies" since it and more than 100 affiliated companies filed for Chapter 11 bankruptcy in Delaware on Friday.

The securities commission in the Bahamas on Monday won court approval to appoint two partners from PwC, one based in the Bahamas office and the second in Hong Kong, to oversee the unwinding of FTX Digital Markets.

Davis told those "who care about our country's reputation to tread carefully when they speak about matters that are very complex and still unfolding . . . this is a story that has the world's attention, and those who use it to mislead and score cheap political points are no patriots".

See Lex

Commodities

Nickel prices soar to 6-month high as thin trading conditions boost volatility

HARRY DEMPSEY — LONDON
LESLIE HOOK — GENEVA

Nickel prices have surged to the highest level in more than six months, underlining worsening trading conditions since market chaos broke out in March.

The benchmark nickel contract for delivery in three months surged to hit the London Metal Exchange's daily trading limit of 15 per cent, reaching almost $31,000 per tonne on Monday.

That was followed by a 5 per cent rise on Tuesday after a nickel mine in New Caledonia, which supplies Tesla, cut its fourth-quarter production forecast.

Trading sources said the volatile price movements were a testament to the low liquidity that has haunted the market since the LME suspended and cancelled billions of dollars worth of nickel trades in March following an unprecedented price rise.

"The market is still very thin," said Geordie Wilkes, head of research at Sucden Financial, a metals brokerage. "What we've seen is the effects of low liquidity play out right in front of us."

Nickel, which is used to make stainless steel and the batteries used in electric cars, has suffered an extremely turbulent year.

Fears of sanctions on Norilsk Nickel, a large Russian producer, coincided with a huge bet by the world's largest stainless steel producer, Tsingshan, that prices would fall, causing prices to more than double in a matter of days in March.

Nickel prices have rallied almost 25 per cent in five days off the back of optimism over the Chinese economy reopening and Beijing supporting the property sector, as well as a weaker US dollar following better than expected inflation data.

Production was reduced at the Goro nickel mine due to heavy rainfall

But Nikhil Shah, head of nickel research at consultancy CRU, said the string of positive news "is no justification for the rally we've seen" and "we could see a big correction over the next few months".

Volume on the LME three-month nickel contract since March has been 30 per cent of levels in the six months before the market chaos, according to Bloomberg data.

Prony Resources, the owner of the Goro nickel mine in New Caledonia, which is partly owned by commodity trading giant Trafigura, said in a statement that production had to be reduced in the final three months of the year because heavy rain caused a "limited release of salt-laden liquid" from its tailing dam.

One nickel trader said the primary driver behind nickel's surge was a weaker dollar exacerbated by low liquidity on the nickel contract. "Any supply side issues are not material."

Asset management

Berkshire's $4bn TSMC stake spotlights Buffett shift into blue-chip tech groups

ERIC PLATT — NEW YORK

Warren Buffett's Berkshire Hathaway purchased a $4.1bn stake in chipmaker Taiwan Semiconductor Manufacturing Co in the third quarter, vaulting a third tech company into the sprawling conglomerate's top stock holdings.

The purchase of 60mn US-listed shares of TSMC, disclosed with US securities regulators this week, marked Berkshire's largest new stock investment during the three months to September.

It is also the latest shift by the conglomerate, which spans the Geico insurer, BNSF railroad group and Dairy Queen ice cream purveyor, into blue-chip technology companies.

Buffett has in recent years shown a greater willingness to invest in tech with the Berkshire stock portfolio now counting Apple, computer and printer maker HP and cloud database company Snowflake among its holdings.

The well-known value investor has had a sometimes fractious relationship with the tech industry.

He avoided large investments in the sector for years, warning shareholders that he either did not understand the operations or was not best equipped to value the businesses of many high-tech companies.

That has changed as the industry has matured and Buffett's understanding of the sector's place in the global economy has evolved. Berkshire now holds a $126.5bn stake in Apple — its largest investment in a publicly traded stock.

Buffett, who has said he regretted passing on earlier investments in Google owner Alphabet and Amazon, has had his fair share of misses.

Well-known value investor has had a sometimes fractious relationship with the tech industry

The company invested and then sold out of its stake in IBM — he conceded in 2017 that Big Blue was facing intense competition from rivals.

Berkshire also briefly held a stake in Intel, buying shares in 2011 before selling out the next year.

Jim Shanahan, an analyst at Edward Jones, estimated that shares of tech and communications businesses now made up roughly half of Berkshire's stock portfolio, which he said offered a balance given the conglomerate's "portfolio companies are more old economy".

It was unclear whether Buffett directed the investment in TSMC himself or if it was made by Todd Combs or Ted Weschler, two lieutenants who help oversee the company's $306bn stock portfolio. Berkshire did not respond to a request for comment.

The tweaks to Berkshire's investment portfolio were somewhat small in the third quarter. The company also bought a $13mn stake in investment bank Jefferies and purchased $300mn worth of building materials maker Louisiana-Pacific. It increased its investments in oil majors Chevron and Occidental and media company Paramount Global.

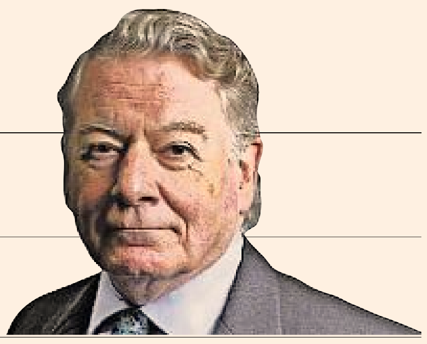
The company cut its holdings of gaming group Activision Blizzard, banks US Bancorp and BNY Mellon, and carmaker General Motors. The adjustments follow a spurt of dealmaking by Berkshire this year, including the $11.6bn takeover of insurer Alleghany.

Additional reporting by Edward White in Seoul

Test of central bank credibility looms on risk of bond losses

John Plender

Markets Insight



This year's savage bear market in bonds across the world raises a pressing question in relation to central bank balance sheets. These are greatly enlarged as a result of asset buying, or quantitative easing, in response to the financial crisis and the pandemic.

Yet the US Federal Reserve and other advanced country central banks are horrendously undercapitalised compared with private sector banks.

So they are unusually vulnerable to losses on their bond portfolios. They face unprecedented credit risk on illiquid and dodgy assets acquired through operations as lenders and market makers of last resort. Should markets worry?

The traditional central banker's response is: there is no cause for concern. The job of central banks is the pursuit of such noble goals as price stability, not profit maximisation.

As Willem Buiter, a former member of the Bank of England's monetary policy committee has long argued, their balance sheet is anyway a misleading guide to financial strength in that it does not include their most valuable asset: seigniorage, or the profit on manufacturing money.

Any view of central banks' solvency has to reflect the fact that they can bail themselves out simply by issuing base money — money and commercial bank deposits held at the central bank.

So even if the conventional balance sheet is technically insolvent, they would have no difficulty in meeting their liabilities as they fell due.

The supposedly clinching argument for insouciance is that several central banks, including those of Chile, the Czech Republic, Israel and Mexico, have operated without difficulty, despite having negative accounting equity in their balance sheets for prolonged periods — because of their credibility on monetary and financial stability at the time.

Whether the same can be said of the big central banks after a protracted episode of ultra-low interest rates is moot.

This morally hazardous policy has contributed to unprecedented peacetime levels of debt. Since the financial crisis, the central banks have vastly increased their exposure to risk.

On their central mandate of price stability, they have failed dismally to anticipate accelerating inflation. As the BoE's recent firefighting exercise to address volatility in the gilt market resulting from an unwinding of pension fund investment strategies demonstrated, some have also been slow to identify the whereabouts of excessive leverage in the non-bank financial sector.

> The perverse enthusiasm for flaky crypto is a sorry verdict on independent monetary policymaking

Retail investors' perverse enthusiasm for flaky crypto assets is also a sorry verdict on independent monetary policymaking since it is substantially driven by distrust of central banks.

The one inescapable fact is that central banks cannot recapitalise themselves in the event of insolvency through seigniorage without generating unacceptably high inflation.

The view that they can always print their way out of trouble is simply an illusion. Central bankers anyway do worry about their balance sheets because they are nervous of market perceptions and politicians' reactions.

In some cases, this concern is formalised. The European Central Bank, for example, requires national central banks in the monetary union to avoid prolonged low or negative equity.

It follows from all this that it is not enough for politicians to hold central banks accountable solely for policy.

In a recent paper, Paul Wessels of De Nederlandsche Bank and Dirk Broeders of Maastricht University argue that adequate capital is necessary to maintain confidence that the central bank is effective in implementing monetary policy and is able to absorb financial risks independently of government.

Establishing a uniform capital adequacy regime for central banks would be impossible. With quasi-fiscal measures such as quantitative easing, where the taxpayer is exposed, the ownership of risk is shared differently between governments and central banks from one country to another.

When compared with the private sector, capital adequacy would also be an imprecise discipline as the incidence and size of financial liabilities arising from last resort lending and market making are inherently unknowable.

For the Fed, capital adequacy is less of a problem than for other central banks.

It continues to be the guardian of the world's pre-eminent reserve currency and markets appear reassured by the Fed's policy tightening this year. But the severe weakness of central bank balance sheets is sadly symptomatic of how the advanced economies have come to operate with minimal margins of safety.

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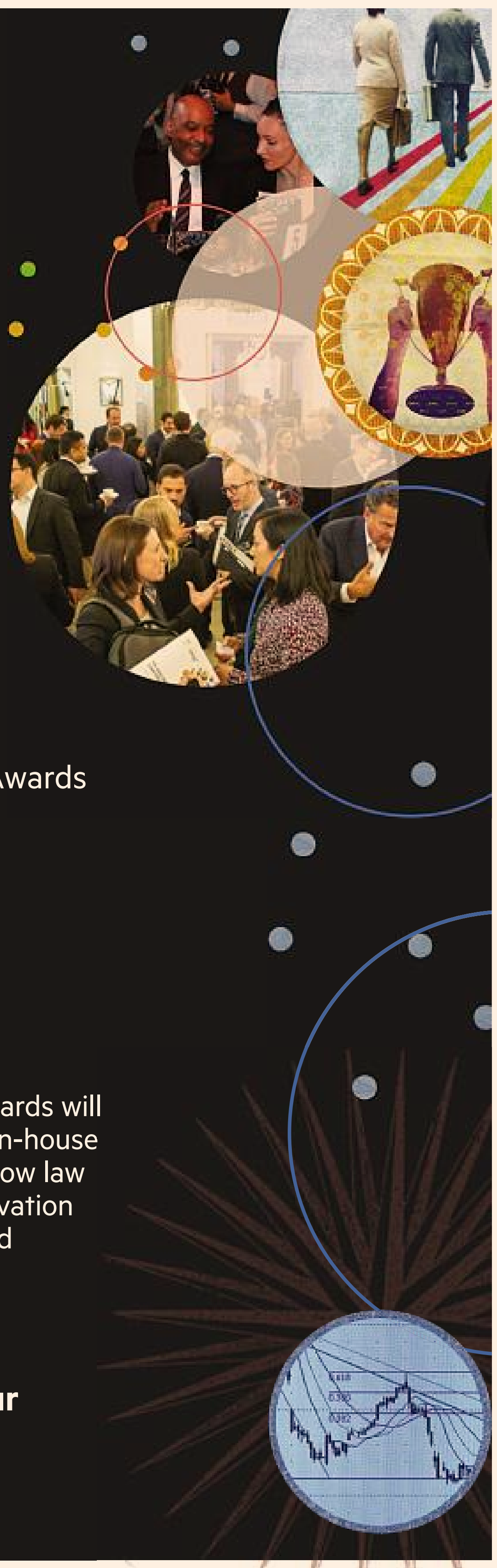
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SHORTLIST ANNOUNCED

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The day in the markets

What you need to know

- **Wall Street stocks slide as retail sales figures beat forecasts**
- **US industrial production falls in October despite projections of 0.2% rise**
- **European equities slide while Asian indices' positive week is interrupted**

US stocks fell yesterday as investors digested hotter than expected retail sales data and a slowdown in manufacturing output growth in the world's biggest economy.

Wall Street's benchmark S&P 500 sank 0.5 per cent and the tech-heavy Nasdaq Composite lost 1.2 per cent.

The US Dollar index, which tracks the currency against six of its peers, dipped 0.1 per cent and has fallen 4.7 per cent so far in November.

Data out yesterday showed US retail sales climbed more than expected in October, rising 1.3 per cent, having levelled off in September. Economists polled by Reuters had forecast a 1 per cent rise.

"Dwindling savings and increased use of credit are keeping the consumer propped up right now," said Shelby McFaddin, analyst at Motley Fool Asset Management.

Another batch of data showed US manufacturing output rose 0.1 per cent in October, slightly less than the 0.2 per cent increase predicted by economists. US industrial production, which includes mining and utilities plus manufacturing, fell 0.1 per cent. Economists had projected a rise of 0.2 per cent.

The figures suggested that US manufacturing was "slowly succumbing to the global malaise", said Paul Ashworth, chief North America economist at Capital Economics.

In government bond markets, the yield on the two-year Treasury note, which is particularly sensitive to interest rates, added 1 basis point to 4.37 per cent.

The yield on the benchmark 10-year US note fell by 7bp to 3.72 per cent.

Across the Atlantic, the pan-regional Stoxx Europe 600 fell 1 per cent.

London's FTSE lost 0.3 per cent after fresh data showed that UK inflation accelerated to 11.1 per cent last month, up from 10.1 per cent in September.

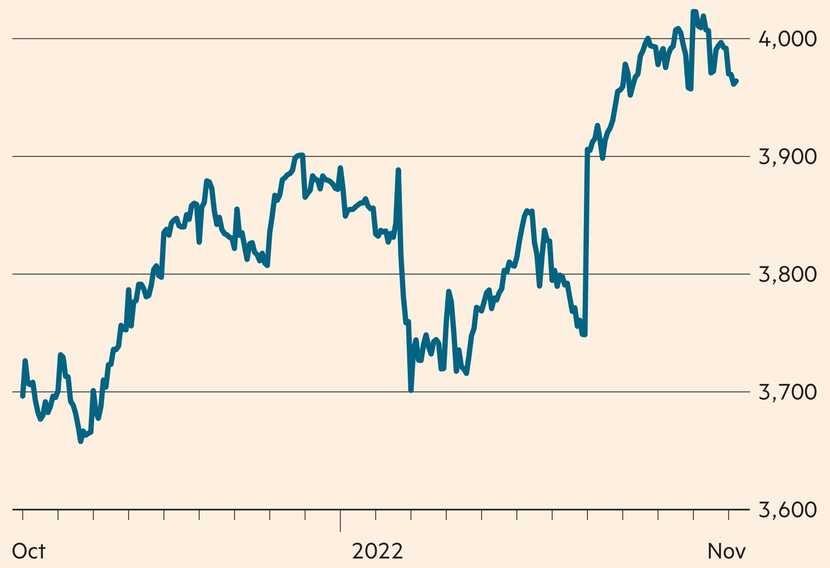
James Smith, economist at ING, said: "The fact that the government is effectively fixing electricity [and] gas unit prices below wholesale costs until next April means this is probably as high as it will get, though admittedly we expect headline rates to stay in double-digits until at least February next year."

Asian equities fell after making strong gains this week as geopolitical tension in Europe and rising Covid-19 cases in China hit markets.

Hong Kong's Hang Seng lost 0.5 per cent, the CSI 300 of Shanghai and Shenzhen stocks slid 0.8 per cent and Seoul's Kospi fell 0.1 per cent. **George Steer**

The S&P 500's bumpy ride higher

Index



Wall Street's benchmark index has risen 7.7% in a month
Source: Bloomberg

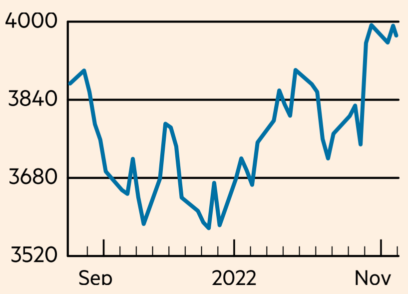
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	3971.58	1698.29	28028.30	7351.19	3119.98	110522.32
% change on day	-0.50	-0.81	0.14	-0.25	-0.45	-2.33
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	106.086	1.041	139.345	1.189	7.080	5.342
% change on day	-0.299	0.386	0.075	-0.084	0.660	0.322
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	3.725	1.994	0.240	3.142	2.836	12.604
Basis point change on day	-8.460	-11.100	0.140	-14.600	2.500	14.500
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	407.21	91.97	84.53	1771.35	21.94	4009.70
% change on day	-0.61	-2.01	-2.75	0.14	2.19	0.65

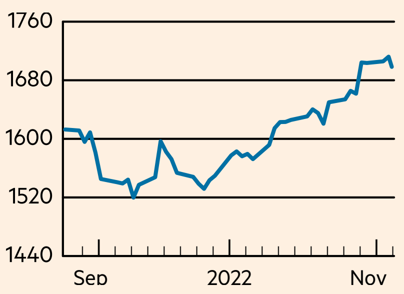
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

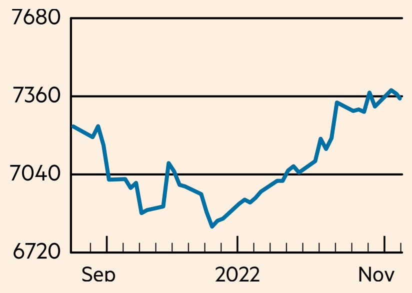
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Lowe's Companies	4.69	Alstom	6.53	Sage	7.33
	Loln National	3.83	Deutsche Boerse	2.82	Bae Systems	4.22
	Mckesson	3.70	Thales	2.54	Haleon	3.21
	Discover Fin Services	3.67	Beiersdorf	2.35	Experian	2.56
	Tjx Companies	3.45	Caixabank	1.52	Reckitt Benckiser	1.97
Downs	Advance Auto Parts	-17.30	Porsche	-5.86	Ocado	-5.74
	Carnival	-13.58	Adp	-4.73	Rightmove	-4.49
	Target	-12.06	Thyssenkrupp	-4.58	Rolls-royce Holdings	-4.27
	Best Buy	-7.45	Schindler	-4.49	Int Consolidated Airlines S.a.	-4.25
	Lam Research	-6.55	Asml Holding	-4.33	Hargreaves Lansdown	-4.22

Prices taken at 17:00 GMT. Based on the constituents of the FTSE Eurofirst 300 Eurozone. All data provided by Morningstar unless otherwise noted.

Wall Street

A chunky earnings miss sent **Target** diving, with the big-box retailer posting earnings of $1.54 per share in the third quarter, down 49 per cent year on year and way below the £2.13 Wall Street had expected.

In the latter half of the previous quarter, Brian Cornell, chief executive, identified a meaningful softening in sales and profit trends, with "shopping behaviour increasingly impacted by inflation, rising interest rates and economic uncertainty".

In response, Target forecast a low-single digit decline in comparable sales in this quarter, far worse than the 3.2 per cent rise analysts polled by Refinitiv had predicted. Another retailer, home-improvement group **Lowe's**, rallied after lifting its full-year guidance, with earnings per share expected to land between $13.65 and $13.80, up from a previous estimate of $13.10 to $13.60.

There were few signs the DIY boom was waning as Lowe's reported third-quarter earnings of $3.27 a share, which beat analysts' estimates by 17 cents.

The prospect of a dilution of investors' shares weighed on cruise operator **Carnival**, which announced a private offering of $1bn in convertible senior notes. Proceeds from the sale were earmarked for use as part of its refinancing plan. *Ray Douglas*

Europe

Franco-Dutch airline **Air France-KLM** fell sharply as it launched an offering for convertible bonds eligible to be turned into new shares or exchanged for existing stock for €300mm. The proceeds would be used to repay perpetual bonds held by the French state, which boosted the balance sheet of the pandemic-hit airline.

According to Citi's calculations, if Air France-KLM exclusively issued new equity on conversion of the debt, this would dilute the outstanding share capital by between 6 per cent and 7.5 per cent.

More fundraising, this time by France's **Voltalia**, sent the renewable energy group lower. It planned to raise €490mn through the issue of 35.8mn new shares.

An encouraging order book and guidance lifted French train group **Alstom**, which secured orders of €10.1bn for its fiscal half year, exceeding analysts' estimates.

What particularly improved sentiment was clarity around its free cash flow, with Alstom expecting to generate between €100mn and €300mn in 2023.

Germany's **Mercedes-Benz** sank following reports that the automaker was cutting the prices of some of its electric vehicles in China, owing to weaker than expected demand. Rivals **BMW**, **Volkswagen**, **Renault** and **Porsche** fell in tandem following the news. *Ray Douglas*

London

Accounting software company **Sage** leapt to the top of the FTSE 100 index as it reported growth in annual recurring revenue of 12 per cent for its fiscal year, up from a half-year rate of 10 per cent.

This performance owed much to a two percentage point rise in Sage's renewal rate, "reflecting good retention rates and strong sales to existing customers", it said.

Joining Sage near the top of the blue-chip benchmark was credit data provider **Experian**, which posted an 8 per cent year-on-year rise in benchmark operating profit and lifted its interim dividend by 6 per cent to 17 cents a share.

Trading platform **CMC Markets** fell sharply after posting half-year results that delivered "no surprises", said Jefferies.

The group, which benefited from an uptick in trading during the pandemic, reported a 7 per cent year-on-year decline in active trading clients, although revenue per client rose 36 per cent.

Energy tech and equipment supplier **Enteq Technologies** surged following a more than doubling in its half-year revenue to $4.9mn.

Underpinning its results was a steady increase in North American drilling, helped by the "relative stability" of US crude prices, said the group. *Ray Douglas*

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

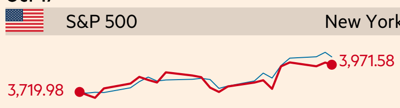
S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.50%	-1.23%	0.14%	-0.25%	-0.81%	0.14%	-0.47%	-0.61%	0.386%	-0.084%	0.075%	0.459%	-0.93%	0.14%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison

AMERICAS

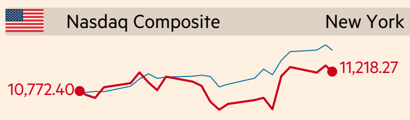
Oct 17 - - — Index — All World

S&P 500 New York



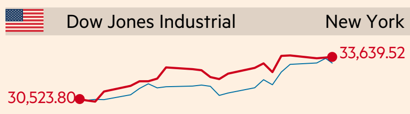
Day -0.50% Month 10.87% Year -15.50%

Nasdaq Composite New York



Day -1.23% Month 8.71% Year -29.76%

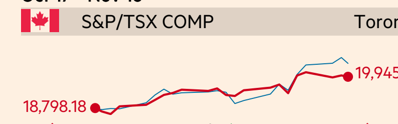
Dow Jones Industrial New York



Day 0.14% Month 13.56% Year -6.89%

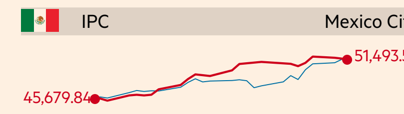
Oct 17 - Nov 16 — Index — All World

S&P/TSX COMP Toronto



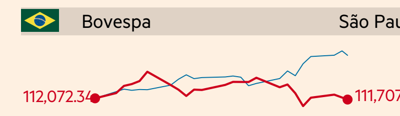
Day -0.19% Month 8.88% Year -8.12%

IPC Mexico City



Day -0.50% Month 13.21% Year 0.56%

Bovespa São Paulo

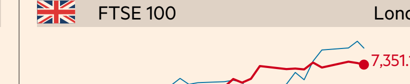


Day -2.33% Month -1.45% Year 5.79%

EUROPE

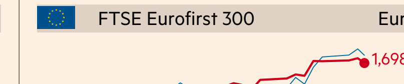
Oct 17 - Nov 16 — Index — All World

FTSE 100 London



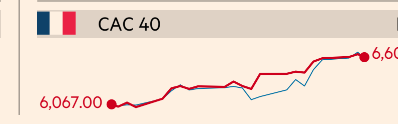
Day -0.25% Month 7.77% Year 0.40%

FTSE Eurofirst 300 Europe



Day -0.81% Month 9.64% Year -10.26%

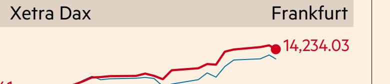
CAC 40 Paris



Day -0.52% Month 11.38% Year -7.31%

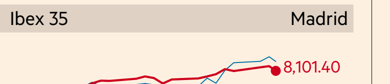
Oct 17 - Nov 16 — Index — All World

Xetra Dax Frankfurt



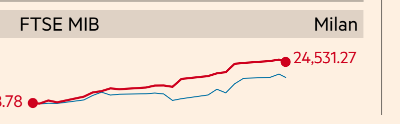
Day -1.00% Month 7.37% Year NaN%

Ibex 35 Madrid



Day -1.06% Month 9.74% Year -10.93%

FTSE MIB Milan

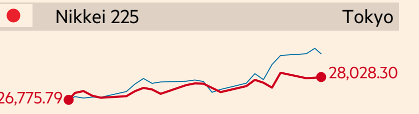


Day -0.68% Month 17.46% Year -11.78%

ASIA

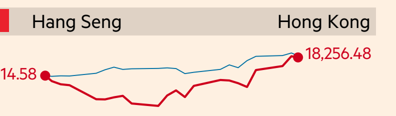
Oct 17 - Nov 16 — Index — All World

Nikkei 225 Tokyo



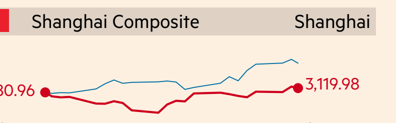
Day 0.14% Month 3.52% Year -5.82%

Hang Seng Hong Kong



Day -0.47% Month 10.25% Year -27.98%

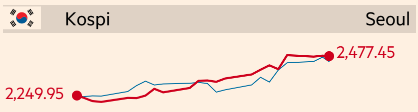
Shanghai Composite Shanghai



Day -0.45% Month 1.56% Year -11.70%

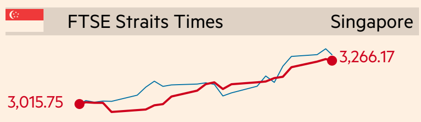
Oct 17 - Nov 16 — Index — All World

Kospi Seoul



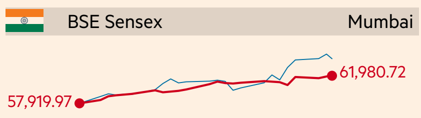
Day -0.12% Month 11.97% Year -17.41%

FTSE Straits Times Singapore



Day -0.28% Month 7.69% Year 1.01%

BSE Sensex Mumbai



Day 0.17% Month 6.96% Year 2.03%

Country	Index	Latest	Previous
Argentina	Merval	153603.91	155085.54
Australia	All Ordinaries	7327.40	7345.40
	S&P/ASX 200	7122.20	7141.60
	S&P/ASX 200 Res	5975.40	5921.50
Austria	ATX	3187.11	3224.43
Belgium	BEL 20	3613.08	3667.12
	BEL Mid	9499.97	9580.18
Brazil	IBovespa	110522.32	113161.28
Canada	S&P/TSX 60	1209.58	1210.62
	S&P/TSX Comp	19957.13	19994.78
	S&P/TSX Div Met & Min	1391.37	1374.09
Chile	S&P/CLX IGPA Gen	28251.27	28386.82
China	FTSE A200	10148.30	10225.55
	FTSE B35	9000.71	8988.96
	Shanghai A	3270.13	3284.87
	Shanghai B	291.11	292.64
	Shanghai Comp	3119.98	3134.08
	Shenzhen A	2132.11	2148.97
	Shenzhen B	1136.95	1138.06
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1239.28	1246.81
Denmark	OMXC Copenahgen 20	1698.28	1716.55
Egypt	EGX 30	12341.20	12137.00
Estonia	OMX Tallinn	1739.42	1742.28
Finland	OMX Helsinki General	10913.52	10981.57
France	CAC 40	6607.22	6641.66
	SBF 120	5069.83	5105.06
Germany	M-DAX	25610.93	26181.16
	TecDAX	3080.42	3129.61
	XETRA Dax	14234.03	14378.51
Greece	Athens Gen	887.00	903.87
	FTSE/ASE 20	2150.32	2194.25
Hong Kong	Hang Seng	18256.48	18343.12
	HS China Enterprise	6225.71	6269.29
	HSCC Red Chip	3489.49	3510.78
Hungary	Bux	44277.83	44308.29
India	BSE Sensex	61980.72	61872.99
	Nifty 500	15663.30	15693.90
Indonesia	Jakarta Comp	7014.38	7035.50
Ireland	ISEQ Overall	7162.29	7285.21
Israel	Tel Aviv 125	1980.91	1966.39

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	26581.64	26734.67
	FTSE Italia Mid Cap	39538.21	40147.29
	FTSE MIB	24531.27	24699.75
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	28028.30	27990.17
	S&P Topix 150	1690.68	1692.80
	Topix	1930.17	1935.49
Jordan	Amman SE	2447.10	2443.78
Kenya	NSE 20	1658.65	1655.89
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1104.26	1107.02
Lithuania	OMX Vilnius	916.77	918.55
Luxembourg	LuxX	1426.35	1459.83
Malaysia	FTSE Bursa KLCI	1448.38	1450.54
Mexico	IPC	51397.52	51655.68
Morocco	MASI	10581.12	10466.66
Netherlands	AEX	709.11	716.43
	AEX All Share	964.90	976.16
New Zealand	NZX 50	11230.55	11239.14
Nigeria	SE All Share	43808.25	43818.12
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	42983.75	42796.85

Country	Index	Latest	Previous
Philippines	Manila Comp	6392.09	6418.94
Poland	Wig	55627.26	56385.92
Portugal	PSI 20	5797.76	5818.28
	PSI General	4415.16	4439.23
Romania	BET Index	11651.83	11656.53
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	11096.58	11197.46
Singapore	FTSE Straits Times	3266.17	3275.28
Slovakia	SAX	331.17	331.17
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	72607.46	72998.69
	FTSE/JSE Res 20	70706.22	72797.48
	FTSE/JSE Top 40	66222.28	66524.92
South Korea	Kospi	2477.45	2480.33
	Kospi 200	321.96	322.31
Spain	IBEX 35	8101.40	8188.40
Sri Lanka	CSE All Share	8087.04	8291.52
Sweden	OMX Stockholm 30	2075.02	2098.01
	OMX Stockholm AS	795.25	808.46
Switzerland	SMI Index	10936.62	11026.22

Country	Index	Latest	Previous
Taiwan	Weighted Pr	14537.35	14546.31
Thailand	Bangkok SET	1619.98	1629.38
Turkey	BIST 100	4668.52	4668.52
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2462.40	2483.50
	FTSE 100	7351.19	7369.44
	FTSE 4Good UK	6631.40	6661.66
	FTSE All Share	4035.87	4055.88
	FTSE techMARK 100	6250.61	6252.76
USA	DJ Composite	11212.75	11243.41
	DJ Industrial	33639.52	33592.92
	DJ Transport	14336.36	14617.02
	DJ Utilities	939.03	927.18
	Nasdaq 100	11731.81	11871.15
	Nasdaq Cmp	11218.27	11358.41
	NYSE Comp	15315.14	15381.00
	S&P 500	3971.58	3991.73
	Wilshire 5000	39559.54	39844.30
Venezuela	IBC	10647.05	10545.88
Vietnam	VNI	942.90	911.90

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	420.41	422.05
	Euro Stoxx 50 (Eur)	3883.15	3915.09
	Euronext 100 ID	1256.98	1266.76
	FTSE 4Good Global ($)	9672.91	9708.62
	FTSE All World ($)	407.21	409.70
	FTSE E300	1698.29	1712.20
	FTSE Eurotop 100	3339.72	3363.43
	FTSE Global 100 ($)	2500.74	2514.94
	FTSE Gold Min ($)	1652.15	1666.97
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2673.93	2647.81
	FTSE World ($)	739.35	743.76
	FTSEurofirst 100 (Eur)	4507.90	4534.78
	FTSEurofirst 80 (Eur)	5273.40	5320.38
	MSCI ACWI Fr ($)	621.28	614.79
	MSCI All World ($)	2678.23	2653.94
	MSCI Europe (Eur)	1749.08	1746.12
	MSCI Pacific ($)	2602.37	2568.06
	S&P Euro (Eur)	1738.77	1755.40
	S&P Europe 350 (Eur)	1741.07	1756.29
	S&P Global 1200 ($)	2938.13	2952.98
	Stoxx 50 (Eur)	3673.27	3693.37

(c) Closed. (u) Unavaliable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tesla	68.7	187.91	-6.51
Apple	44.7	148.43	-1.62
Amazon.com	42.6	97.99	-0.95
Nvidia	40.7	161.32	-5.34
Target	37.8	157.40	-21.59
Advanced Micro Devices	29.0	72.95	-3.42
Microsoft	20.3	242.27	0.30
Alphabet	12.5	99.08	0.64
Alphabet	10.5	99.35	0.63
Netflix	9.8	304.38	-5.82
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Lowe's Companies	218.65	9.81	4.69
Loln National	35.47	1.31	3.83
Mckesson	366.78	13.10	3.70
Discover Fin Services	107.43	3.80	3.67
Tjx Companies	77.71	2.59	3.45
Downs			
Advance Auto Parts	152.11	-31.83	-17.30
Carnival	9.65	-1.52	-13.58
Target	157.40	-21.59	-12.06
Best Buy	69.97	-5.63	-7.45
Lam Research	458.60	-32.14	-6.55

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Astrazeneca	198.4	10748.00	-52.00
Bp	177.9	481.35	4.30
Glencore	157.3	517.30	-2.20
Shell	156.4	2370.50	-4.50
Rio Tinto	113.7	5378.00	-81.00
Vodafone	106.3	97.16	1.27
Unilever	105.5	4064.50	31.00
Gsk	90.7	1374.40	20.20
Natwest	88.9	246.90	-3.60
British American Tobacco	84.9	3256.50	28.00
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Sage	811.20	55.40	7.33
Hill & Smith	1150.00	58.00	5.31
Kainos	1510.00	69.00	4.79
Bae Systems	769.80	31.20	4.22
Haleon	288.05	8.95	3.21
Downs			
Carnival	727.40	-116.40	-13.79
Cmc Markets	234.00	-34.00	-12.69
Bridgepoint	213.60	-20.40	-8.72
Aston Martin Lagonda Global Holdings	121.85	-11.25	-8.45
Syncona	172.80	-12.00	-6.49

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Roche Gs	505.2	318.22	-2.65
Nestle N	364.7	110.57	0.71
Asml Holding	344.8	554.20	-25.10
Prosus	290.9	59.57	0.52
Totalenergies	258.9	58.41	0.63
Novartis N	253.3	80.58	-0.63
Eni	214.9	14.36	-0.12
Intesa Sanpaolo	183.9	2.19	0.00
Zurich Insurance N	169.9	441.73	8.87
Ing Groep N.v.	155.9	11.25	-0.04
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Alcon N	64.94	3.14	5.08
Mowi	15.23	0.44	2.99
Zurich Insurance N	441.73	8.87	2.05
Heineken	87.52	0.96	1.11
Totalenergies	58.41	0.63	1.09
Downs			
Adyen	1490.40	-73.20	-4.68
Asml Holding	554.20	-25.10	-4.33
Volkswagen Ag Vzo O.n.	137.40	-6.00	-4.18
Sartorius Sted Bio	337.20	-14.70	-4.18
Sika N	247.62	-10.19	-3.95

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	2056.4	6328.00	181.00
Tokyo Electron	912.5	46400.00	750.00
Fast Retailing Co.,	466.3	83350.00	300.00
Toyota Motor	451.4	1996.00	-2.00
Mitsubishi Ufj Fin,.	405.1	719.50	-3.00
Sony	376.3	11390.00	-200.00
Sumitomo Mitsui Fin,.	370.0	4475.00	7.00
Olympus	343.8	2704.00	-114.50
Shin-etsu Chemical Co.,	324.2	17685.00	350.00
Nintendo Co.,	317.4	5815.00	51.00
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Thb Japan Steel Works,	3095.00	122.00	4.10
Nichirei	2706.00	105.00	4.04
Konami	6720.00	210.00	3.23
Cyberagent,.	1244.00	38.00	3.15
Mitsui & Co.,	3940.00	116.00	3.03
Downs			
T&d Holdings, .	1480.00	-63.00	-4.08
Olympus	2704.00	-114.50	-4.06
Dai-ichi Life Holdings	2346.00	-88.00	-3.62
Tokio Marine Holdings,.	2667.50	-99.50	-3.60
Mitsubishi Motors	577.00	-20.00	-3.35

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Nov 16 price(p)	%Chg week	%Chg ytd
Winners			
Centrica	86.98	12.1	22.0
Sage	811.20	10.4	-4.9
Prudential	985.80	9.2	-
Ocado	726.00	8.6	-
St. James's Place	1164.50	8.5	-
Schroders	449.40	7.7	-
Scottish Mortgage Investment Trust	807.40	7.1	-
Jd Sports Fashion	114.95	7.0	-
M&g	189.85	6.7	-5.4
Kingfisher	241.00	6.5	-
Informa	585.40	6.3	13.7
Halma	2349.00	6.1	-
Losers			
Harbour Energy	333.70	-11.3	-4.6
Vodafone	97.16	-6.7	-
Imperial Brands	2053.00	-4.6	26.7
British American Tobacco	3256.50	-4.0	19.7
Bae Systems	769.80	-3.8	40.0
Sainsbury (j)	211.00	-3.4	-
Airtel Africa	116.20	-2.8	-
Whitbread	2467.00	-2.7	-
Dcc	4444.00	-2.4	-26.5
Gsk	1374.40	-2.3	-15.8
Smiths	1575.00	-2.0	-0.8
Relx	2280.00	-1.9	-5.1

FTSE 250	Nov 16 price(p)	%Chg week	%Chg ytd
Winners			
Kainos	1510.00	20.3	-
Molten Ventures	448.20	18.6	-
Ferrexpo	146.20	12.9	-
Fidelity China Special Situations	219.00	11.7	-
Currys	79.20	11.7	-
Domino's Pizza	271.80	11.3	-
Hill & Smith	1150.00	11.2	-
Asos	739.50	10.8	-
Just	70.45	10.5	-
Liontrust Asset Management	1110.00	10.3	-
Future	1518.00	10.2	-
Discoverie	870.00	10.1	-
Losers			
Aston Martin Lagonda Global Holdings	121.85	-14.8	-
Beazley	604.50	-8.5	29.5
Cmc Markets	234.00	-7.9	-8.8
Home Reit	76.60	-7.4	-
Baltic Classifieds	140.60	-6.6	-
Vietnam Enterprise Investments	509.00	-6.3	-
Qinetiq	344.40	-4.8	29.8
Balanced Commercial Property Trust	87.40	-4.8	-
Uk Commercial Property Reit	59.80	-4.6	-
888 Holdings	95.65	-4.1	-
Syncona	172.80	-3.5	-
Bridgepoint	213.60	-3.4	-

FTSE SmallCap	Nov 16 price(p)	%Chg week	%Chg ytd
Winners			
Card Factory	61.50	22.5	3.5
Superdry	125.80	21.0	-
Jpmorgan China Growth & ome	323.50	18.9	-
Rank	70.40	17.5	-
Lsl Property Services	265.00	15.2	-
Pod Point Holdings	75.00	14.7	-
Capital & Regional	52.70	14.6	-
Funding Circle Holdings	49.00	14.0	-
Baillie Gifford China Growth Trust	254.50	12.1	-
Seraphim Space Investment Trust	50.35	11.8	-
Sabre Insurance	96.00	10.6	-
Oxford Biomedica	338.50	10.3	-
Losers			
Blackrock Latin American Investment Trust	378.50	-9.0	12.1
Galliford Try Holdings	154.00	-8.1	-
Petra Diamonds	102.00	-7.3	44.1
Treatt	617.00	-6.2	-
Zotefoams	315.00	-5.8	-
Nanoco	34.00	-5.6	76.6
Trifast	58.90	-5.0	-62.5
Taylor Maritime Investments	90.30	-4.9	-9.3
The Gym	97.40	-4.7	-62.1
Abrdn Eur Logistics ome	72.80	-4.6	-36.4
Restaurant	33.40	-4.6	-
Trustpilot	102.40	-4.2	-

Industry Sectors	Nov 16 price(p)	%Chg week	%Chg ytd
Winners			
Life Insurance	6565.10	6.4	-
Software & Computer Services	1883.76	4.7	-
Electronic & Electrical Equip.	9401.75	4.2	-
Real Estate & Investment Servic	2190.22	3.9	-
Construction & Materials	6846.58	3.7	-18.9
Industrial Metals	7408.12	3.7	16.3
Gas Water & Multiutilities index	5691.96	3.4	-4.2
Support Services	10268.85	2.9	-
Personal Goods	32766.29	2.8	-8.9
Real Estate Investment Trusts	2328.62	2.7	-
Equity Investment Instruments	11507.81	2.5	-
General Industrials	6234.87	2.2	-
Losers			
Automobiles & Parts	1303.26	-6.5	-
Tobacco	35366.35	-3.9	21.1
Mobile Telecommunications	2401.35	-3.7	-
Aerospace & Defense	4694.45	-3.4	12.2
Pharmaceuticals & Biotech.	20038.46	-0.9	6.9
Nonlife Insurance	3099.90	-0.7	-5.7
General Retailers	3247.14	-0.4	12.2
Oil & Gas Producers	8289.94	-0.3	45.0
Travel & Leisure	6344.20	0.1	-
Health Care Equip.& Services	10848.43	0.5	31.6
Food & Drug Retailers	4066.35	0.5	-6.9
Food Producers	5570.97	0.6	-

Based on last week's performance. †Price at suspension.

CURRENCIES

Nov 16	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	162.4583	0.3322	169.0460	0.9788	193.2118	0.3309
Australia	Australian Dollar	1.4807	0.0048	1.5408	0.0108	1.7610	0.0051
Bahrain	Bahrainin Dinar	0.3769	-0.0001	0.3921	0.0014	0.4482	-0.0002
Bolivia	Bolivian Boliviano	6.9100	-	7.1902	0.0270	8.2181	-0.0027
Brazil	Brazilian Real	5.3425	0.0171	5.5591	0.0386	6.3538	0.0183
Canada	Canadian Dollar	1.3311	0.0015	1.3851	0.0068	1.5831	0.0013
Chile	Chilean Peso	905.2250	18.5900	941.9321	22.8060	1076.5851	21.7579
China	Chinese Yuan	7.0803	0.0464	7.3674	0.0757	8.4206	0.0524
Colombia	Colombian Peso	4933.3500	126.3700	5133.3991	150.2645	5867.2396	148.3886
Costa Rica	Costa Rican Colon	613.2500	-0.5600	638.1175	1.8141	729.3389	-0.9092
Czech Republic	Czech Koruna	23.4362	-0.0173	24.3865	0.0736	27.8726	-0.0299
Denmark	Danish Krone	7.1484	-0.0272	7.4382	-0.0002	8.5015	-0.0351
Egypt	Egyptian Pound	24.4870	0.0597	25.4799	0.1575	29.1224	0.0613
Hong Kong	Hong Kong Dollar	7.8222	-0.0007	8.1394	0.0298	9.3030	-0.0039
Hungary	Hungarian Forint	394.9114	2.0112	410.9251	3.6269	469.6685	2.2362
India	Indian Rupee	81.3050	0.1975	84.6019	0.5222	96.6961	0.2028

Nov 16	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Indonesia	Indonesian Rupiah	15602.5000	65.0000	16235.1894	128.2912	18556.0774	71.1398
Israel	Israeli Shekel	3.4329	0.0204	3.5721	0.0346	4.0827	0.0230
Japan	Japanese Yen	139.3450	0.1050	144.9955	0.6530	165.7232	0.0697
..One Month		139.3445	0.1040	144.9953	0.6526	165.7227	0.0688
..Three Month		139.3432	0.1015	144.9947	0.6515	165.7215	0.0665
..One Year		139.3379	0.0908	144.9916	0.6452	165.7227	0.0621
Kenya	Kenyan Shilling	122.0000	-	126.9471	0.4764	145.0947	-0.0483
Kuwait	Kuwaiti Dinar	0.3080	0.0002	0.3204	0.0014	0.3662	0.0001
Malaysia	Malaysian Ringgit	4.5450	-0.0005	4.7293	0.0172	5.4054	-0.0024
Mexico	Mexican Peso	19.3075	-0.0697	20.0904	0.0031	22.9624	-0.0906
New Zealand	New Zealand Dollar	1.6238	0.0012	1.6896	0.0076	1.9312	0.0008
Nigeria	Nigerian Naira	442.5000	-1.2500	460.4435	0.4321	526.2657	-1.6624
Norway	Norwegian Krone	9.9983	0.0241	10.4037	0.0640	11.8910	0.0247
Pakistan	Pakistani Rupee	222.2500	0.3500	231.2623	1.2307	264.3222	0.3283
Peru	Peruvian Nuevo Sol	3.8389	0.0130	3.9946	0.0284	4.5656	0.0139
Philippines	Philippine Peso	57.3575	0.1425	59.6834	0.3717	68.2153	0.1468

Nov 16	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Poland	Polish Zloty	4.5173	-0.0030	4.7005	0.0145	5.3724	-0.0054
Romania	Romanian Leu	4.7288	-0.0070	4.9206	0.0112	5.6240	-0.0102
Russia	Russian Ruble	60.4000	-0.3500	62.8492	-0.1270	71.8338	-0.4403
Saudi Arabia	Saudi Riyal	3.7587	0.0007	3.9111	0.0154	4.4702	-0.0007
Singapore	Singapore Dollar	1.3700	0.0001	1.4256	0.0055	1.6293	-0.0004
South Africa	South African Rand	17.2150	-0.0562	17.9131	0.0089	20.4738	-0.0737
South Korea	South Korean Won	1324.9500	7.3500	1378.6771	12.7929	1575.7645	8.2192
Sweden	Swedish Krona	10.4676	0.0329	10.8920	0.0749	12.4491	0.0349
Switzerland	Swiss Franc	0.9427	-0.0024	0.9809	0.0012	1.1212	-0.0032
Taiwan	New Taiwan Dollar	31.0655	0.0180	32.3252	0.1400	36.9462	0.0091
Thailand	Thai Baht	35.6675	0.1025	37.1138	0.2455	42.4194	0.1078
Tunisia	Tunisian Dinar	3.2222	-0.0112	3.3528	0.0010	3.8321	-0.0146
Turkey	Turkish Lira	18.6118	0.0008	19.3665	0.0735	22.1350	-0.0065
United Arab Emirates	UAE Dirham	3.6731	-	3.8220	0.0143	4.3684	-0.0015
United Kingdom	Pound Sterling	0.8408	0.0003	0.8749	0.0036	-	-
..One Month		0.8409	0.0003	0.8748	0.0036	-	-

Nov 16	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
..Three Month		0.8412	0.0003	0.8745	0.0036	-	-
..One Year		0.8417	0.0003	0.8734	0.0035	-	-
United States	United States Dollar	-	-	1.0406	0.0039	1.1893	-0.0004
..One Month		-	-	1.0403	-0.1491	1.1894	-0.0004
..Three Month		-	-	1.0397	-0.1492	1.1897	-0.0004
..One Year		-	-	1.0379	-0.1492	1.1902	-0.0004
Vietnam	Vietnamese Dong	24785.0000	10.0000	25790.0791	107.1705	29476.8739	2.0852
European Union	Euro	0.9610	-0.0036	-	-	1.1430	-0.0047
..One Month		0.9608	-0.0036	-	-	1.1428	-0.0047
..Three Month		0.9602	-0.0037	-	-	1.1425	-0.0047
..One Year		0.9584	-0.0037	-	-	1.1414	-0.0047

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg Nov 16	Day's chge%	Euro Index	£ Strlg Nov 15	£ Strlg Nov 14	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7351.19	-0.25	6543.02	7369.44	7385.17	7326.97	3.71	1.61	16.78	248.91	7529.68
FTSE 250 (250)	19112.40	-1.77	17011.24	19455.88	19622.25	23539.71	3.12	0.93	34.49	493.01	15863.62
FTSE 250 ex Inv Co (174)	19556.26	-1.94	17406.31	19943.57	20140.49	24364.27	3.24	1.47	21.01	528.11	16566.13
FTSE 350 (350)	4074.57	-0.48	3626.62	4094.09	4106.80	4203.45	3.62	1.52	18.18	133.01	8281.88
FTSE 350 ex Investment Trusts (271)	4008.92	-0.42	3568.19	4025.94	4038.70	4090.49	3.69	1.68	16.15	133.46	4211.32
FTSE 350 Higher Yield (131)	3498.51	-0.21	3113.90	3505.82	3518.00	3272.71	5.12	1.74	11.22	150.01	8010.17
FTSE 350 Lower Yield (219)	4237.44	-0.75	3771.59	4269.60	4281.23	4911.98	2.07	0.95	50.80	89.16	5214.16
FTSE SmallCap (237)	6155.52	-1.11	5478.80	6224.58	6211.82	7515.72	3.47	0.52	55.13	191.19	10332.15
FTSE SmallCap ex Inv Co (126)	4905.53	-1.42	4366.23	4976.06	4965.24	6266.83	3.67	2.40	11.35	144.72	8555.77
FTSE All-Share (587)	4035.87	-0.49	3592.18	4055.88	4067.93	4184.79	3.62	1.49	18.49	131.55	8283.77
FTSE All-Share ex Inv Co (397)	3936.10	-0.44	3503.38	3953.36	3965.59	4030.54	3.69	1.69	16.06	130.82	4198.12
FTSE All-Share ex Multinationals (524)	1069.60	-1.49	790.52	1085.75	1095.40	1352.41	3.92	0.97	26.23	36.31	2270.45
FTSE Fledgling (82)	11509.36	-0.24	10244.05	11537.51	11538.22	13617.96	3.73	4.75	5.65	331.42	24883.24
FTSE Fledgling ex Inv Co (32)	14963.78	-0.49	13318.71	15037.28	14974.47	18450.13	3.43	8.05	3.62	432.38	31426.14
FTSE All-Small (319)	4293.60	-1.06	3821.57	4339.70	4331.31	5233.55	3.49	0.77	37.24	132.87	9243.51
FTSE All-Small ex Inv Co (158)	3692.07	-1.38	3286.18	3743.86	3735.44	4710.64	3.66	2.59	10.52	108.85	8155.46
FTSE AIM All-Share (759)	839.88	-1.01	747.55	848.46	851.55	1245.21	1.63	1.52	40.57	11.82	985.64
FTSE All-Share Technology (21)	2014.04	0.56	1648.45	2002.77	2010.55	2320.61	1.89	0.89	59.60	38.02	2914.96
FTSE All-Share Telecommunications (6)	1560.60	0.36	1277.32	1554.93	1647.46	1903.18	6.73	1.04	14.36	58.51	2323.76
FTSE All-Share Health Care (14)	13978.73	0.10	11441.34	13964.43	14058.24	13061.34	2.85	0.99	35.47	343.37	12918.26
FTSE All-Share Financials (254)	4442.18	-1.18	3635.84	4495.28	4504.84	5019.61	3.79	1.13	23.33	159.03	4936.23
FTSE All-Share Real Estate (55)	848.08	-1.92	726.15	864.68	866.26	1202.70	4.08	4.16	5.88	28.87	889.42
FTSE All-Share Consumer Discretionary (84)	4503.46	-1.47	3686.00	4570.42	4578.01	5482.97	2.38	1.05	39.96	101.72	4770.87
FTSE All-Share Consumer Staples (24)	19224.85	0.71	15735.20	19090.06	19246.41	19182.06	3.97	1.13	22.25	617.01	17559.54
FTSE All-Share Industrials (84)	6282.93	-0.59	5142.47	6320.30	6317.36	7409.08	2.28	1.36	32.27	131.14	7268.49
FTSE All-Share Basic Materials (22)	8865.31	-1.50	7256.10	9000.16	8940.23	7809.14	6.13	2.01	8.11	536.92	12083.07
FTSE All-Share Energy (13)	8575.96	0.14	7019.27	8563.60	8544.55	6211.19	3.50	2.74	10.40	301.53	10433.37
FTSE All-Share Utilities (10)	8414.60	0.48	6887.20	8374.03	8400.12	8291.53	4.53	0.34	64.08	293.03	12712.22
FTSE All-Share Software and Computer Services (18)	2171.80	0.60	1777.58	2158.88	2167.60	2489.35	1.89	0.89	59.42	41.24	3325.71
FTSE All-Share Technology Hardware and Equipment (3)	5189.27	-0.32	4247.33	5205.85	5206.53	6938.95	1.71	0.91	64.41	78.21	6706.70
FTSE All-Share Telecommunications Equipment (1)	608.47	-1.38	498.02	616.97	616.52	644.34	2.02	2.31	21.44	11.51	869.76
FTSE All-Share Telecommunications Service Providers (5)	2397.72	0.44	1962.49	2387.10	2535.76	2938.81	6.94	1.02	14.15	91.72	3249.90
FTSE All-Share Health Care Providers (3)	10942.47	0.18	8956.21	10923.32	10933.17	8593.93	0.53	4.88	38.45	58.27	10156.38
FTSE All-Share Medical Equipment and Services (2)	5363.83	0.52	4390.20	5336.34	5361.59	6265.92	2.66	0.97	38.92	142.76	5181.26
FTSE All-Share Pharmaceuticals and Biotechnology (9)	19978.11	0.08	16351.72	19962.28	20099.83	18450.96	2.88	0.98	35.27	492.51	16622.10
FTSE All-Share Banks (12)	3026.62	-1.14	2477.23	3061.53	3063.38	3030.46	4.30	2.61	8.92	128.47	2678.42
FTSE All-Share Finance and Credit Services (8)	10853.59	-0.12	8883.47	10866.40	10911.87	10114.72	1.92	2.05	25.36	208.86	14583.38
FTSE All-Share Investment Banking and Brokerage Services (31)	8481.30	-2.45	6941.79	8694.28	8751.16	10892.97	5.20	1.71	11.21	387.97	11911.57
FTSE All-Share Closed End Investments (190)	11787.98	-1.31	9648.25	11944.72	11958.80	14574.62	2.65	-2.47	-15.27	270.41	7367.59
FTSE All-Share Life Insurance (6)	6680.45	-0.19	5467.83	6693.34	6700.86	8356.38	4.59	1.08	20.17	294.59	8175.18
FTSE All-Share Nonlife Insurance (7)	3487.03	-1.50	2854.07	3539.95	3574.15	3600.51	4.14	1.24	19.51	130.27	7426.11
FTSE All-Share Real Estate Investment and Services (10)	2099.43	-3.03	1718.35	2165.09	2155.54	3053.30	2.40	3.76	11.08	41.03	6260.14
FTSE All-Share Real Estate Investment Trusts (45)	2115.62	-1.72	1731.60	2152.64	2158.99	2977.98	4.38	4.20	5.43	78.21	3196.39
FTSE All-Share Automobiles and Parts (2)	1309.94	-6.09	1072.16	1394.86	1468.82	4064.11	0.74	-53.35	-2.52	14.02	1362.79
FTSE All-Share Consumer Services (2)	3049.07	0.19	2495.61	3043.41	3002.65	2538.56	1.26	1.71	46.41	38.43	3867.74
FTSE All-Share Household Goods and Home Construction (12)	8363.30	-2.47	6845.21	8575.05	8634.44	13942.23	8.90	1.60	7.01	665.58	7485.87
FTSE All-Share Leisure Goods (2)	19482.36	-2.66	15945.96	20014.31	20292.50	24195.22	3.47	1.59	18.09	831.45	21773.09
FTSE All-Share Personal Goods (4)	28204.46	-1.96	23084.85	28769.53	28696.12	31675.62	1.84	2.81	19.37	402.68	22060.27
FTSE All-Share Media (11)	9346.75	0.18	7650.15	9329.89	9328.32	9936.03	2.37	1.45	29.05	221.42	6576.39
FTSE All-Share Retailers (22)	1859.46	-2.68	1521.93	1910.59	1933.67	2815.64	2.73	3.64	10.07	45.23	2415.07
FTSE All-Share Travel and Leisure (29)	6188.71	-2.95	5065.34	6376.64	6399.51	7924.95	0.65	-9.71	-15.86	40.16	6400.28
FTSE All-Share Beverages (5)	27916.17	0.81	22848.89	27691.74	28023.39	29985.30	2.15	1.99	23.40	584.47	22372.51
FTSE All-Share Food Producers (10)	5689.03	-1.00	4656.37	5746.51	5773.41	6854.42	2.60	2.38	16.21	85.60	5479.18
FTSE All-Share Tobacco (2)	35366.41	0.95	28946.78	35032.09	35303.51	27914.59	6.70	0.87	17.17	1728.22	33055.04
FTSE All-Share Construction and Materials (15)	7250.04	-1.87	5934.03	7388.27	7359.90	8712.18	3.18	0.64	48.97	227.86	8843.24
FTSE All-Share Aerospace and Defense (7)	4938.37	1.87	4041.97	4847.72	4806.06	4653.95	2.39	0.15	282.94	104.10	6023.29
FTSE All-Share Electronic and Electrical Equipment (10)	11043.68	-1.10	9039.06	11166.44	11292.48	14443.78	1.59	1.98	31.80	159.06	10920.24
FTSE All-Share General Industrials (8)	5015.62	-1.05	4105.19	5068.77	5061.61	5648.56	2.84	1.17	30.20	134.98	6615.55
FTSE All-Share Industrial Engineering (5)	16349.32	-0.74	13381.62	16470.81	16632.87	21185.76	1.60	2.01	31.13	261.52	21961.56
FTSE All-Share Industrial Support Services (31)	9879.43	-0.05	8086.14	9884.74	9879.63	12139.59	1.92	1.70	30.72	182.30	11362.44
FTSE All-Share Industrial Transportation (8)	5413.13	-2.70	4430.55	5563.16	5567.51	7078.24	2.15	3.42	13.58	98.14	5671.53
FTSE All-Share Industrial Materials (1)	15752.94	-5.69	489.82	16703.12	16503.08	21704.05	2.09	1.81	26.48	329.06	19898.31
FTSE All-Share Industrial Metals and Mining (9)	7978.03	-1.43	6529.88	8093.58	8012.29	6356.53	6.55	2.01	7.60	517.27	12246.06
FTSE All-Share Precious Metals and Mining (5)	9891.91	-0.44	8096.35	9935.57	10229.35	21782.23	3.62	1.83	15.14	358.99	6974.14
FTSE All-Share Chemicals (7)	13087.91	-2.58	10712.22	13433.95	13642.73	18876.22	2.72	2.11	17.47	324.25	13117.30
FTSE All-Share Oil. Gas and Coal (12)	8325.17	0.14	6814.01	8313.16	8294.71	6027.89	3.51	2.74	10.40	292.72	10503.90
FTSE Sector Indices											
Non Financials (333)	**4950.20**	**-0.30**	**4405.99**	**4965.01**	**4980.95**	**5005.49**	**3.57**	**1.60**	**17.47**	**156.96**	**8937.46**

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7290.32	7275.83	7281.22	7289.30	7287.19	7289.00	7289.21	7283.79	7282.20	7307.53	7263.74
FTSE 250	18676.96	18591.87	18558.72	18588.62	18612.05	18588.53	18577.91	18565.63	18621.43	18687.66	18545.07
FTSE SmallCap	6016.39	6007.28	6002.83	6004.18	6009.71	6005.22	6001.15	5998.02	6001.62	6016.39	5997.90
FTSE All-Share	3992.48	3983.13	3984.49	3989.10	3988.96	3988.98	3988.69	3985.87	3986.83	3999.36	3976.58

Time of FTSE 100 Day's high:15:23:00 Day's Low09:19:45 FTSE 100 2010/11 High: 7672.40(10/02/2022) Low: 6826.15(12/10/2022)
Time of FTSE All-Share Day's high:15:23:00 Day's Low09:21:00 FTSE 100 2010/11 High: 4296.96(10/02/2022) Low: 3712.50(12/10/2022)

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FT 30 INDEX

	Nov 16	Nov 15	Nov 14	Nov 11	Nov 10	Yr Ago	High	Low
FT 30	2462.40	2483.50	2512.20	2488.80	2489.50	0.00	2880.10	2152.10
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2483.5	2471.2	2471.2	2472.6	2467.8	2464.1	2462.4	2461.8	2457.4	2484.5	2456.3

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FT WILSHIRE 5000 INDEX SERIES

	Nov 15		Nov 15
FT Wilshire 5000	40633.93	FT Wilshire Mid Cap	5531.87
FT Wilshire 2500	5201.51	FT Wilshire Small Cap	5026.42
FT Wilshire Mega Cap	5160.77	FT Wilshire Micro Cap	4923.19
FT Wilshire Large Cap	5222.53		

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FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	45.13	Gas Water & Multi	-4.41	FTSE SmallCap Index	-17.48
Oil & Gas	44.59	Consumer Goods	-4.86	Food Producers	-17.71
Tobacco	20.75	Health Care Eq & Srv	-5.51	FTSE 250 Index	-18.60
Mining	15.84	Software & Comp Serv	-8.52	Support Services	-18.67
Aerospace & Defense	11.80	Technology	-8.68	Construct & Material	-19.59
Basic Materials	7.97	Media	-9.21	Industrial Eng	-20.30
Pharmace & Biotech	6.80	Travel & Leisure	-9.80	Fixed Line Telecomms	-22.82
Health Care	5.96	Tech Hardware & Eq	-10.09	Leisure Goods	-23.27
Personal Goods	1.62	Beverages	-10.56	Electronic & Elec Eq	-24.34
Banks	0.56	Nonlife Insurance	-12.09	Household Goods & Ho	-26.57
Beverages	31.66	Financial Services	-12.66	Chemicals	-28.94
Electricity	-0.45	Financials	-12.87	Food & Drug Retailer	-30.67
FTSE 100 Index	-0.45	Life Insurance	-14.13	Real Est Invest & Tr	-31.52
Oil Equipment & Serv	-1.40	Mobile Telecomms	-14.14	General Retailers	-32.35
NON FINANCIALS Index	-2.40	Industrials	-15.16	Real Est Invest & Se	-33.59
Utilities	-3.42	Telecommunications	-16.57	Industrial Transport	-39.47
FTSE All{HY-}Share Index	-4.09	Consumer Services	-16.90	Automobiles & Parts	-64.08
		Equity Invest Instr	-17.32	Industrial Metals &	-79.49

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	1257.5	-37.00	International Consolidated Airlines Group S.A.	133.26	-5.92
Admiral Group PLC	2041	-32.00	Intertek Group PLC	3985	-136.00
Airtel Africa PLC	116.20	-0.80	Jd Sports Fashion PLC	114.95	-4.80
Anglo American PLC	3241	-103.50	Kingfisher PLC	241.00	-5.00
Antofagasta PLC	1365	-35.00	Land Securities Group PLC	610.60	-5.40
Ashtead Group PLC	4906	-144.00	Legal & General Group PLC	248.00	1.70
Associated British Foods PLC	1528.5	-27.50	Lloyds Banking Group PLC	43.13	-0.59
Astrazeneca PLC	10748	-52.00	London Stock Exchange Group PLC	7996	10.00
Auto Trader Group PLC	555.80	-18.20	M&G PLC	189.85	-
Aveva Group PLC	3180	-	Melrose Industries PLC	128.95	-2.45
Aviva PLC	442.90	5.50	Mondi PLC	1562.5	-6.00
B&M European Value Retail S.A.	385.90	-6.60	National Grid PLC	1011	8.00
Bae Systems PLC	769.80	31.20	Natwest Group PLC	246.90	-3.60
Barclays PLC	154.40	-2.82	Next PLC	5572	-154.00
Barratt Developments PLC	397.50	-7.00	Ocado Group PLC	726.00	-44.20
Berkeley Group Holdings (The) PLC	3700	-77.00	Pearson PLC	970.40	6.80
BP PLC	481.35	4.30	Pershing Square Holdings LTD	2915	15.00
British American Tobacco PLC	3256.5	28.00	Persimmon PLC	1282	-40.50
British Land Company PLC	391.70	-4.40	Phoenix Group Holdings PLC	570.20	2.80
Bt Group PLC	120.85	-1.90	Prudential PLC	985.80	-14.20
Bunzl PLC	3011	34.00	Reckitt Benckiser Group PLC	5784	112.00
Burberry Group PLC	2003	-30.00	Relx PLC	2280	24.00
Centrica PLC	86.98	0.70	Rentokil Initial PLC	538.00	6.00
Coca-Cola Hbc AG	2025	17.00	Rightmove PLC	540.60	-25.40
Compass Group PLC	1851	3.50	Rio Tinto PLC	5378	-81.00
Convatec Group PLC	224.80	2.20	Rolls-Royce Holdings PLC	87.22	-3.89
Crh PLC	3308.5	-67.00	Rs Group PLC	939.50	-19.50
Croda International PLC	6896	-112.00	Sage Group PLC	811.20	55.40
Dcc PLC	4444	-77.00	Sainsbury (J) PLC	211.00	-5.10
Dechra Pharmaceuticals PLC	2764	-116.00	Schroders PLC	449.40	-17.90
Diageo PLC	3645.5	31.50	Scottish Mortgage Investment Trust PLC	807.40	-26.40
Endeavour Mining PLC	1648	-8.00	Segro PLC	820.80	-21.00
Entain PLC	1318.5	-33.50	Severn Trent PLC	2692	4.00
Experian PLC	2924	73.00	Shell PLC	2370.5	-4.50
F&C Investment Trust PLC	915.00	-11.00	Smith & Nephew PLC	1063.5	3.50
Flutter Entertainment PLC	11290	-165.00	Smith (Ds) PLC	307.40	-6.30
Frasers Group PLC	768.50	-20.50	Smiths Group PLC	1575	-25.00
Fresnillo PLC	851.60	-6.20	Smurfit Kappa Group PLC	3092	-90.00
Glaxosmithkline PLC	1374.4	20.20	Spirax-Sarco Engineering PLC	11600	-160.00
Glencore PLC	517.30	-2.20	Sse PLC	1644	0.50
Haleon PLC	288.05	8.95	St. James's Place PLC	1164.5	-33.50
Halma PLC	2349	-21.00	Standard Chartered PLC	573.60	-3.20
Harbour Energy PLC	333.70	-12.00	Taylor Wimpey PLC	101.40	-2.50
Hargreaves Lansdown PLC	871.20	-38.40	Tesco PLC	225.90	-1.50
Homeserve PLC	1191	3.00	Unilever PLC	4064.5	31.00
HSBC Holdings PLC	475.50	-4.50	Unite Group PLC	937.50	-17.50
Imperial Brands PLC	2053	26.00	United Utilities Group PLC	1011	3.00
Informa PLC	585.40	-	Vodafone Group PLC	97.16	1.27
Intercontinental Hotels Group PLC	4675	-96.00	Whitbread PLC	2467	-81.00
Intermediate Capital Group PLC	1187	-32.50	Wpp PLC	853.20	-17.20

FTSE GLOBAL EQUITY INDEX SERIES

Nov 16 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9520	697.91	1.1	12.5	-17.6	1117.56	-16.0	2.3
FTSE Global All Cap	9520	697.91	1.1	12.5	-17.6	1117.56	-16.0	2.3
FTSE Global Large Cap	1907	622.88	1.0	12.1	-18.0	1028.14	-16.3	2.3
FTSE Global Mid Cap	2264	905.18	1.0	14.2	-15.6	1363.35	-14.0	2.2
FTSE Global Small Cap	5349	937.68	1.3	13.0	-18.1	1350.62	-16.6	2.1
FTSE All-World	4171	409.70	1.0	12.5	-17.5	694.76	-15.9	2.3
FTSE World	2664	743.76	0.9	12.8	-17.2	1692.48	-15.5	2.3
FTSE Global All Cap ex UNITED KINGDOM In	9229	737.67	1.1	12.5	-17.7	1158.56	-16.1	2.2
FTSE Global All Cap ex USA	7709	488.85	1.1	13.9	-18.5	868.55	-16.1	3.3
FTSE Global All Cap ex JAPAN	8115	729.18	1.1	12.7	-17.5	1177.89	-15.9	2.3
FTSE Global All Cap ex Eurozone	8856	739.33	1.1	11.9	-17.4	1158.09	-15.8	2.2
FTSE Developed	2180	682.92	0.9	12.8	-17.2	1100.92	-15.7	2.1
FTSE Developed All Cap	5829	712.59	0.9	12.9	-17.3	1131.79	-15.7	2.1
FTSE Developed Large Cap	834	639.37	0.9	12.4	-17.5	1049.16	-16.0	2.1
FTSE Developed Europe Large Cap	220	374.77	0.8	17.2	-16.6	742.17	-14.1	3.2
FTSE Developed Europe Mid Cap	355	570.03	0.3	21.7	-26.1	979.45	-24.1	3.0
FTSE Dev Europe Small Cap	747	801.84	0.2	21.1	-27.4	1323.78	-25.4	3.1
FTSE North America Large Cap	234	857.06	0.9	11.1	-17.8	1286.74	-16.7	1.7
FTSE North America Mid Cap	423	1135.57	1.2	13.7	-13.2	1576.11	-11.8	1.8
FTSE North America Small Cap	1334	1126.71	1.5	12.6	-14.6	1499.52	-13.5	1.6
FTSE North America	657	562.70	0.9	11.6	-16.9	863.66	-15.8	1.7
FTSE Developed ex North America	1523	258.99	0.9	15.6	-17.9	495.63	-15.5	3.1
FTSE Japan Large Cap	169	369.04	1.2	11.2	-19.1	542.50	-17.0	2.5
FTSE Japan Mid Cap	340	510.58	1.2	7.5	-16.8	712.77	-14.7	2.6
FTSE Global wi JAPAN Small Cap	896	566.81	1.1	8.0	-18.5	821.58	-16.3	2.8
FTSE Japan	509	151.39	1.2	10.4	-18.6	249.18	-16.6	2.5
FTSE Asia Pacific Large Cap ex Japan	1088	667.15	2.4	12.4	-20.0	1215.67	-17.7	3.2
FTSE Asia Pacific Mid Cap ex Japan	868	951.37	1.4	13.0	-16.1	1671.00	-13.6	3.5
FTSE Asia Pacific Small Cap ex Japan	2114	536.58	1.3	11.4	-26.3	915.72	-24.3	3.1
FTSE Asia Pacific Ex Japan	1956	531.48	2.3	12.5	-19.6	1029.24	-17.3	3.2
FTSE Emerging All Cap	3691	701.55	2.1	9.4	-20.3	1222.14	-17.8	3.7
FTSE Emerging Large Cap	1073	646.88	2.5	9.5	-21.4	1133.15	-18.9	3.7
FTSE Emerging Mid Cap	918	1020.83	0.7	10.2	-11.2	1789.94	-8.1	4.0
FTSE Emerging Small Cap	1700	755.24	1.0	7.7	-22.0	1259.79	-19.5	3.4
FTSE Emerging Europe	111	115.42	1.1	21.9	-72.2	241.33	-71.0	2.9
FTSE Latin America All Cap	262	733.63	-0.1	4.9	3.5	1435.99	11.1	10.8
FTSE Middle East and Africa All Cap	330	762.77	-0.4	5.5	-4.2	1396.72	-1.4	3.2
FTSE Global wi UNITED KINGDOM All Cap In	291	308.49	1.1	14.5	-14.3	629.99	-11.4	3.7
FTSE Global wi USA All Cap	1811	967.56	1.0	11.6	-17.0	1400.22	-15.9	1.6
FTSE Europe All Cap	1462	425.70	0.7	18.2	-20.5	809.25	-18.1	3.1
FTSE Eurozone All Cap	664	413.77	0.8	21.5	-20.2	780.67	-17.8	3.1
FTSE EDHEC-Risk Efficient All-World	4171	469.50	0.9	13.1	-14.0	738.77	-12.1	2.7
FTSE EDHEC-Risk Efficient Developed Europe	575	312.85	0.5	19.6	-24.3	549.86	-22.1	3.2
Oil & Gas	131	430.00	1.0	14.8	31.2	879.60	37.1	4.3
Oil & Gas Producers	87	429.69	1.0	13.9	35.3	902.47	41.7	4.6

Nov 16 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	24	289.84	0.9	17.6	23.9	536.94	28.7	4.0
Basic Materials	394	605.42	0.2	16.9	-10.0	1114.27	-6.2	4.8
Chemicals	196	813.25	-0.1	15.6	-16.0	1437.51	-13.8	3.0
Forestry & Paper	20	257.94	0.2	8.4	-15.5	520.80	-12.7	3.8
Industrial Metals & Mining	98	498.10	0.5	21.3	-10.0	952.66	-5.3	7.5
Mining	80	948.54	0.5	17.4	1.9	1849.43	8.2	6.1
Industrials	803	498.05	0.8	16.5	-17.1	794.25	-15.5	2.0
Construction & Materials	154	571.60	0.8	16.7	-22.7	962.12	-21.0	2.2
Aerospace & Defense	35	863.93	1.9	16.0	7.6	1346.44	9.0	1.5
General Industrials	76	240.63	0.8	18.8	-13.3	425.02	-11.2	2.5
Electronic & Electrical Equipment	157	632.90	1.0	18.9	-21.3	909.45	-20.1	1.5
Industrial Engineering	158	997.10	0.2	20.9	-13.8	1584.72	-12.2	1.9
Industrial Transportation	133	919.63	0.1	13.8	-17.2	1495.23	-14.7	3.4
Support Services	90	530.73	0.8	12.2	-25.3	789.64	-24.3	1.5
Consumer Goods	569	549.17	0.8	9.3	-20.3	922.74	-18.8	2.4
Automobiles & Parts	132	522.23	1.5	7.6	-32.5	844.63	-31.4	1.9
Beverages	72	750.63	0.3	6.8	-6.9	1273.02	-5.2	2.3
Food Producers	134	706.99	0.2	7.6	-10.0	1218.27	-8.0	2.5
Household Goods & Home Construction	65	513.07	0.6	12.6	-21.6	864.87	-19.5	2.8
Leisure Goods	53	236.97	1.3	9.9	-25.6	335.08	-24.6	1.4
Personal Goods	98	893.02	1.1	14.6	-22.6	1372.93	-21.4	1.9
Tobacco	15	955.70	0.5	6.6	-0.6	2701.83	3.9	6.3
Health Care	343	711.23	0.3	8.4	-9.9	1132.98	-8.5	1.8
Health Care Equipment & Services	133	1353.48	0.2	7.1	-18.6	1659.68	-18.0	1.0
Pharmaceuticals & Biotechnology	210	481.64	0.3	9.3	-3.1	824.90	-1.0	2.2
Consumer Services	427	534.47	1.8	9.8	-24.1	762.91	-23.4	1.2
Food & Drug Retailers	69	315.53	0.0	10.7	-8.3	501.93	-6.3	2.4
General Retailers	141	944.29	2.6	8.0	-26.1	1289.84	-25.6	1.0
Media	75	301.75	1.6	12.7	-35.7	433.68	-35.0	1.3
Travel & Leisure	142	446.95	0.8	12.0	-12.9	652.21	-12.0	1.1
Telecommunication	89	130.21	-0.6	10.5	-12.2	306.58	-8.9	4.3
Fixed Line Telecommuniations	31	102.08	-0.3	13.4	-9.4	276.21	-5.2	5.2
Mobile Telecommunications	58	153.61	-0.7	9.1	-13.6	311.52	-10.8	3.8
Utilities	200	311.61	1.0	11.2	-9.2	727.61	-6.7	3.4
Electricity	142	353.73	1.0	10.1	-8.3	813.44	-5.8	3.3
Gas Water & Multiutilities	58	305.32	1.1	13.9	-11.5	737.78	-8.8	3.7
Financials	853	261.32	0.7	13.7	-12.9	502.04	-10.4	3.2
Banks	270	199.84	0.6	11.6	-11.7	428.11	-8.3	4.1
Nonlife Insurance	71	350.20	0.1	12.0	-0.1	584.35	2.7	2.9
Life Insurance	51	216.31	1.0	13.7	-10.5	416.56	-7.1	4.0
Financial Services	211	437.40	0.8	17.3	-12.4	663.88	-11.0	1.7
Technology	362	474.41	2.0	13.5	-30.1	618.95	-29.5	1.1
Software & Computer Services	186	704.81	2.0	8.7	-34.1	852.10	-33.8	0.7
Technology Hardware & Equipment	176	427.66	2.1	18.7	-25.4	600.60	-24.4	1.5
Alternative Energy	20	188.35	1.7	24.3	-9.6	270.26	-9.3	0.4
Real Estate Investment & Services	142	253.44	1.1	11.6	-23.0	493.67	-20.8	3.1
Real Estate Investment Trusts	108	444.46	1.0	13.8	-25.5	1037.95	-23.4	3.8
FTSE Global Large Cap	1907	622.88	1.0	12.1	-18.0	1028.14	-16.3	2.3

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see https://research.ftserussell.com/Products/indices/Home/indexfiltergeis?indexName=GEISAC&currency=USD&rtn=CAP&segment=global-developed–emerging. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

UK STOCK MARKET TRADING DATA

	Nov 16	Nov 15	Nov 14	Nov 11	Nov 10	Yr Ago
Order Book Turnover (m)	104.58	410.61	95.15	95.15	95.15	99.23
Order Book Bargains	776450.00	817683.00	1027018.00	1027018.00	1027018.00	967596.00
Order Book Shares Traded (m)	1361.00	1300.00	2021.00	2021.00	2021.00	1614.00
Total Equity Turnover (£m)	7652.40	7561.60	5959.72	5959.72	5959.72	8466.44
Total Mkt Bargains	993105.00	1053589.00	1279254.00	1279254.00	1279254.00	1219137.00
Total Shares Traded (m)	6062.00	6839.00	6195.00	6195.00	6195.00	6371.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar or the FT. The FT does not warrant nor guarantee that the information is reliable or complete. The FT does not accept responsibility and will not be liable for any loss arising from the reliance on or use of the listed information.
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UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
AEW UK REIT	Int			**8.322**	23.547	**5.250**	14.860	**2.00000**	2.00000	Nov 28	**2.000**	4.000
Biotech Growth Trust (The)	Int			**37.030**	49.754L	**90.700**	119.500L	**0.00000**	0.00000	-	**0.000**	0.000
British Land Co	Int	**215.000**	219.000	**22.000L**	373.000	**3.700L**	39.900	**11.60000**	10.32000	Jan 6	**23.200**	16.960
Castings	Int	**85.600**	69.747	**7.453**	5.407	**13.860**	1004.000	**0.00000**	3.66000	-	**12.570**	15.350
CMC Markets	Int	**174.410**	149.115	**36.557**	36.048	**10.200**	9.600	**3.50000**	3.50000	Jan 5	**12.380**	24.930
dotDigital Group	Pre	**62.832**	58.124	**13.605**	12.812	**3.960**	3.550	**0.00000**	0.86000	-	**0.000**	0.860
Enteq Technologies	Int	**4.912**	2.318	**0.766L**	1.205L	**0.011L**	0.018L	**0.00000**	0.00000	-	**0.000**	0.000
Literacy Capital	Int			**38.981**	50.855	**68.150**	84.900	**0.00000**	0.00000	-	**0.000**	0.000
Mediclinic International	Int	**1731.000**	1581.000	**95.000**	91.000	**11.300**	8.800	**0.00000**	0.00000	-	**3.000**	0.000
Pembroke VCT	Int			**5.003L**	15.965	**3.000L**	12.400	**0.00000**	5.00000	-	**0.000**	5.000
Premier Foods	Int	**419.900**	394.100	**42.100**	30.700	**4.200**	2.500	**0.00000**	0.00000	-	**0.000**	1.000
Renold	Int	**116.300**	95.300	**6.500**	6.700	**2.300**	2.600	**0.00000**	0.00000	-	**0.000**	0.000
Sage Group (The)	Pre	**1947.000**	1846.000	**337.000**	347.000	**25.470**	26.330	**12.10000**	11.63000	Feb 10	**18.400**	17.680
SSE	Int	**5629.400**	3543.500	**511.000L**	1686.100	**36.400L**	94.700	**0.00000**	25.50000	-	**60.200**	82.100

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
11/09	250.00		ITH	Ithaca Energy PLC	210.00	0.00	254.90	203.30	211084.1
10/31	4.00		BWN	Bowen Fintech PLC	6.25	0.25	6.00	5.90	343.8
10/27	10.00		UMR	Unicorn Mineral Resource PLC	18.50	0.00	19.50	10.00	513.5
10/24	1.00		ATN	Eastinco Mining and Exploration PLC	0.95	0.00	1.00	0.90	916.5
10/21	55.00	AIM	SND	Sondrel (Holdings) PLC	58.50	-0.53	60.55	51.67	5116.5
10/07	10.00		ACG	ACG Acquisition Company Ltd	9.95	0.40	10.10	9.85	155.5

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	24.16	-0.07	28.33	20.78	5.90	10.71	48785.09
BHP Group	44.45	0.51	53.72	35.70	8.74	11.04	151967.8
CmwBkAu	104.58	-1.90	108.39	86.98	3.16	20.80	119446.82
CSL	289.40	-1.35	319.78	240.10	0.99	43.82	94247.6
NatAusBk	30.31	-0.18	33.75	25.43	2.80	17.07	64558.27
Telstra	3.84	-0.04	4.20	3.62	2.46	33.03	29964.67
Wesfarmers	46.49	-0.21	61.34	40.03	3.62	25.27	35599.3
Westpac Bank	23.84	-0.12	24.67	18.80	3.52	18.34	56369.49
Woolworths	33.72	-0.06	41.13	31.67	3.03	40.66	27702.64
Belgium (€)							
AnBshInBv	52.92	-0.12	58.72	45.56	0.97	27.51	95660.01
KBC Grp	50.26	-1.50	81.70	45.53	6.57	8.52	21802.2
Brazil (R$)							
Ambev	15.63	-0.32	17.74	12.81	3.67	23.22	46079.15
Bradesco	12.98	-0.12	17.72	12.69	6.50	5.91	11833.56
Cielo	5.05	-0.06	6.22	2.01	2.93	16.81	2568.1
ItauHldFin	22.66	-0.24	26.04	18.86	3.47	8.82	21030.59
Petrobras	31.24	-0.31	42.08	26.76	15.60	4.38	43519.75
Vale	81.69	-1.62	107.11	61.85	16.15	3.59	73072.75
Canada (C$)							
Bausch Hlth	9.08	-0.45	36.26	5.10	-	-2.94	2468.46
BCE	62.44	0.46	74.09	55.66	5.19	22.57	42777.92
BkMontrl	130.94	-1.36	154.47	113.73	3.20	10.87	66624.03
BkNvaS	68.87	-0.68	95.00	63.19	4.98	9.30	61640.75
Brookfield	60.77	-0.83	79.04	51.07	1.00	21.75	73948.67
CanadPcR	102.62	2.43	106.93	86.12	0.69	26.53	71707.49
CanImp	62.99	-0.18	167.50	55.35	8.82	4.71	42831.99
CanNatRs	81.67	-1.13	88.18	48.42	2.26	13.66	67938.99
CanNatRy	162.70	1.43	171.48	137.26	1.40	25.52	82766.45
Enbridge	53.86	0.27	59.69	46.88	5.74	20.28	81929.84
GtWesLif	31.47	-0.58	41.50	27.99	5.68	9.55	22026.64
ImpOil	75.49	-0.43	79.83	41.04	1.26	23.44	34680.57
Manulife	23.36	-0.13	28.09	20.81	4.63	7.13	33137.05
Nutrien	104.40	-1.25	147.93	84.37	2.06	16.18	41045.25
RylBkC	131.10	-0.68	149.60	116.75	3.14	12.57	136525.01
SHOP	51.46	-1.78	222.87	33.00	-	1.92	38584.39
Suncor En	48.67	-0.52	53.62	28.77	2.00	18.99	49506.8
ThmReut	149.96	2.93	156.62	119.23	1.26	11.16	54176.45
TntoDom	87.30	-0.42	109.08	77.27	3.46	11.81	119010.21
TrnCan	64.28	0.73	74.44	54.60	5.01	37.35	48868.34
China (HK$)							
AgricBkCh	2.44	-0.03	3.15	2.22	8.53	3.27	9588.36
Bk China	2.66	-0.03	3.20	2.51	8.17	3.36	28436.59
BkofComm	4.21	-0.10	5.74	3.84	8.11	3.55	18843.73
BOE Tech	0.68	0.03	0.86	0.57	-	11.19	17.30
Ch Coms Cons	3.39	-0.01	5.17	3.09	5.86	2.87	1914.88
Ch Evrbrght	2.25	-0.04	3.11	2.04	10.39	3.11	3646.91
Ch Rail Cons	4.18	-0.04	5.95	3.75	6.12	2.27	1109.53
Ch Rail Gp	3.88	-0.02	5.88	3.48	5.18	3.19	2086.95
ChConstBk	4.60	-0.05	6.23	4.12	7.88	3.41	141382.21
China Vanke	13.34	-0.84	21.70	9.96	10.42	6.14	3251.37
ChinaCitic	3.25	-0.03	4.08	2.92	8.43	3.08	6183.24
ChinaLife	10.52	-0.28	15.04	8.53	6.34	4.69	10007.56
ChinaMBank	37.25	0.35	70.80	25.40	3.75	7.01	21862.28
ChinaMob	49.50	0.20	58.65	45.90	6.35	7.80	129474.12
ChinaPcIns	16.54	-0.02	25.90	12.10	7.76	5.50	5868.34
ChMinsheng	2.49	-0.07	3.29	2.19	9.64	3.29	2648.52
ChMrchSecs	13.40	-0.18	18.56	12.06	3.29	11.87	14046.74
Chna Utd Coms	3.59	0.05	4.08	3.30	3.14	17.87	15699.18
ChShenEgy	22.55	0.10	27.65	15.98	8.87	6.98	9736.67
ChShpbldng	3.61	0.01	4.33	3.36	-	-266.28	11259.87
ChStConEng	5.26	-0.06	6.40	4.63	4.12	4.04	30337
ChUncHK	3.73	0.08	4.43	3.27	4.12	8.39	14590.72
CNNC Intl	6.21	0.03	8.92	5.78	2.02	16.11	16533.31
CSR	2.88	-0.04	3.80	2.37	7.02	8.08	1609.34
Daqin	6.56	0.03	7.25	5.95	7.38	9.86	13774.37
GuosenSec	9.10	-0.12	11.70	8.43	2.55	10.37	11345.14
HaitongSecs	4.53	-0.14	7.34	3.77	6.20	5.02	1974.55
Hngzh HikVDT	31.42	-0.36	55.55	28.10	2.57	17.13	40718.6
Hunng Pwr	3.38	0.10	5.74	2.62	5.71	-3.87	2031.04
IM Baotou Stl	1.96	-0.02	3.21	1.75	-	33.11	8768.89
In&CmBkCh	3.73	-0.04	4.94	3.37	7.96	3.49	41387.74
IndstrlBk	16.51	-0.19	23.22	15.01	4.74	4.49	48441.8
Kweichow	1585.25	-2.75	2216.96	1359	1.23	35.43	281257.56
Midea	0.37	0.01	0.61	0.35	-	-4.10	14.24
New Ch Life Ins	16.20	-0.38	24.70	12.04	9.24	3.14	2141.67
PetroChina	3.42	0.03	4.49	3.01	6.82	7.04	9224.86
PingAnIns	44.45	0.30	69.40	31.30	5.51	7.21	42321.15
PngAnBnk	11.82	-0.19	19.06	10.39	1.49	7.00	32396.01
Pwr Cons Corp	7.19	-0.07	9.81	5.99	1.24	14.83	11161.66
SaicMtr	14.55	-0.03	22.14	13.77	4.12	7.22	24009.51
ShenwanHong	0.09	0.00	0.18	0.05	-	2.69	100.25
ShgPdgBk	7.03	-0.03	8.81	6.64	6.60	4.46	29143.77
Sinopec Corp	3.45	0.01	4.28	3.06	3.95	4.24	11228.7
Sinopec Oil	1.97	0.02	2.37	1.70	-	649.86	3775.54
Denmark (kr)							
DanskeBk	120.90	1.60	133.25	91.28	1.59	8.63	14582.12
MollerMrsk	14855	-460.00	24070	13185	2.20	2.52	17399.38
NovoB	810.80	-1.30	864.40	604.40	1.11	40.73	197649.94
Finland (€)							
Nokia	4.59	-0.09	5.71	4.12	-	16.48	27182.33
SampoA	47.60	0.77	48.74	35.85	3.45	10.55	26402.63
France (€)							
Airbus Grpe	114.26	-0.12	120.36	86.52	-	21.82	93712.27
AirLiquide	136.72	-0.44	153.40	114.48	1.93	26.29	74460.9
AXA	26.70	0.07	29.09	20.34	5.14	9.37	64904.04
BNP Parib	52.09	-0.38	68.07	40.67	4.93	7.82	66903.56
ChristianDior	683.50	-7.50	733.50	513.00	0.98	25.99	128379.85
Cred Agr	9.53	-0.11	14.27	8.09	8.05	5.42	30177.7
Danone	50.29	0.44	58.24	46.48	3.70	17.82	35366.11
EDF	11.93	0.02	12.49	6.64	3.92	9.56	48247.08
Engie SA	14.26	-0.10	14.61	9.79	3.57	10.47	36145.5
EssilorLuxottica	171.25	0.30	195.00	132.70	0.61	54.41	79728.2
Hermes Intl	1442.5	-12.50	1678	957.60	0.30	64.51	158459.03
LOreal	345.55	2.80	433.65	300.45	1.11	43.86	192987.58
LVMH	698.60	-5.60	741.60	535.00	0.96	30.47	365832.05
Orange	9.76	0.00	11.94	8.93	5.90	3374.17	27006.62
PernodRic	185.40	0.90	214.50	166.60	1.61	29.16	49762.69
Renault	32.04	-1.23	38.07	20.47	-	-24.93	9859.15
Safran	112.26	0.56	121.38	87.85	0.37	1169.83	49907.17
Sanofi	84.72	0.09	106.08	76.45	3.62	17.85	111736.03
Sant Gbn	43.51	-1.61	64.82	35.20	3.00	10.84	23350.56
Schneider	138.54	-2.44	173.78	110.02	1.80	25.46	82327.52
SocGen	23.88	-0.53	37.68	18.34	2.22	4.20	21118.2
Total	58.24	0.46	59.15	40.09	4.45	11.66	158723.68
UnibailR	53.13	-1.44	73.09	39.68	-	-7.89	7671.25
Vinci	95.22	-0.02	103.74	80.74	2.71	22.00	59249.3
Vivendi	8.58	-0.16	12.16	7.59	6.71	-15.96	9892.54
Germany (€)							
Allianz	202.25	2.10	232.50	156.22	4.55	13.31	85960.49
BASF	49.57	-0.73	69.15	37.90	6.39	8.55	47375.2
Bayer	52.62	-0.80	67.99	43.91	3.65	53.76	53791.4
BMW	82.53	-2.65	97.60	67.58	2.21	4.58	51697.31
Continental	57.66	-2.90	111.96	44.44	-	9.26	11999.98
Deut Bank	10.13	-0.18	14.64	7.46	-	10.39	21794
Deut Tlkm	19.02	0.06	19.77	14.47	3.03	22.78	98677.93
DeutsPost	38.42	-0.64	58.31	29.68	3.45	10.13	49535.04
E.ON	8.89	-0.07	12.54	7.28	5.07	5.15	24438.99
Fresenius Med	29.55	-0.62	63.66	26.19	4.35	9.30	9009.37
Fresenius SE	24.00	-0.19	38.24	19.76	3.60	7.91	13947.59
HenkelKGaA	62.30	-0.55	74.75	56.55	2.82	17.27	16841.6
Linde	321.85	-1.95	329.15	244.00	1.11	52.10	165568.25
Mercedes-Benz	61.15	-4.04	77.90	50.19	2.12	6.37	68073.38
MuenchRkv	289.80	0.40	293.20	205.15	3.25	14.43	42247.04
SAP	106.84	-0.06	126.48	81.35	1.66	24.96	136575.75
Siemens	121.12	-2.00	156.98	93.67	2.77	18.98	107126.73
Volkswgn	184.10	-6.85	286.40	158.80	2.50	6.48	56528.97
Hong Kong (HK$)							
AIA	76.05	0.25	92.50	57.25	1.54	19.81	114955.57
BOC Hold	24.70	-0.45	32.75	23.20	4.43	12.90	33385.46
Ch OSLnd&Inv	19.96	-0.34	27.35	14.58	5.30	5.05	27928.17
ChngKng	48.00	0.90	57.00	42.90	3.25	11.18	22122.82
Citic Ltd	7.80	-0.20	9.26	6.96	6.08	3.67	29007.65
Citic Secs	14.80	-0.50	21.32	11.82	2.85	7.76	4957.32
CK Hutchison	44.20	0.05	60.45	38.80	4.54	5.70	21667.06
CNOOC	10.44	-0.04	12.54	7.55	3.82	9.28	59494.82
HangSeng	122.90	-3.00	169.50	110.00	4.37	20.13	30038.28
HK Exc&Clr	304.80	-4.40	483.60	208.20	2.64	34.98	49402.56
MTR	37.90	0.45	43.70	33.45	2.86	27.93	30050.1
SandsCh	20.00	0.12	24.90	12.50	-	-22.49	20692.91
SHK Props	92.75	0.10	101.10	83.10	4.70	10.79	34359.79
Tencent	294.40	6.40	509.00	198.60	0.48	11.79	360603.15
India (Rs)							
Bhartiartl	841.20	5.95	844.05	628.75	-	187.25	61617.17
HDFC Bk	1632.9	13.90	1722.1	1271.6	-	28.86	111950.79
Hind Unilevr	2477.85	20.35	2734	1927	1.24	69.21	71606.12
HsngDevFin	2697.2	21.70	2977.2	2026	0.82	23.94	60287.88
ICICI Bk	913.60	1.90	943.25	642.15	0.21	30.22	78338.23
Infosys	1602.8	8.80	1923.3	1360	1.82	33.02	82950.69
ITC	344.10	-1.15	361.45	207.00	3.00	29.81	52495.77
L&T	2003.6	7.05	2056	1456.35	0.86	34.65	34629.95
OilNatGas	142.90	0.55	189.80	119.85	6.12	4.22	22110.85
RelianceIn	2592.35	-14.95	2856.15	2222	0.26	30.93	215728.71
SBI NewA	599.75	-1.10	622.70	430.70	0.64	17.44	65832.84
SunPhrmInds	1018.65	2.60	1070.95	733.70	0.71	39.58	30060.67
Tata Cons	3355.35	22.75	3920	2950.1	1.04	33.41	151004.22
Israel (ILS)							
TevaPha	32.62	0.50	37.23	23.83	-	28.64	10616.05
Italy (€)							
Enel	5.14	0.03	7.25	3.96	6.84	24.91	54365.2
ENI	14.36	-0.12	14.85	10.43	4.51	6.30	53868.38
Generali	17.08	-0.03	21.55	13.67	8.26	10.00	28091.49
IntSPaolo	2.19	0.00	2.92	1.58	1.60	70.75	44288.44
Unicred	12.99	-0.06	15.93	7.75	0.89	20.10	30240.51
Japan (¥)							
AstellasPh	2060.5	-40.00	2205	1739	2.37	29.90	27146.81
Bridgestne	5271	-117.00	5509	4042	3.34	11.56	26997.05
Canon	3130	-1.00	3516	2467	3.31	14.60	29959.3
CntJpRwy	15900	-295.00	17920	14660	0.87	-28.74	23505.69
Denso	7586	-89.00	9575	6549	1.96	20.04	42896.05
EastJpRwy	7634	-49.00	8280	6373	1.39	-7.38	20704.98
Fanuc	20900	-70.00	25300	18740	2.30	23.96	30283.87
FastRetail	83350	300.00	88230	54310	0.67	37.72	63448.56
Fuji Hvy Ind	2263	-53.00	2684	1664.5	2.63	25.06	12491.62
Hitachi	7205	-22.00	7460	4750	1.70	10.18	50081.17
HondaMtr	3313	-18.00	3755	3043	4.14	6.76	43067.65
JapanTob	2737	-8.00	2824	2000	5.30	13.43	39283.8
KDDI	4036	-10.00	4636	3237	3.16	13.04	66695.94
Keyence	60370	330.00	74710	44880	0.35	48.64	105367.6
MitsbCp	4381	62.00	4845	3383	3.35	9.42	46347.06
MitsubEst	994.21	-3.77	1001.25	876.51	-	-	-
MitsubishiEle	1372	-0.50	1524	1225.5	3.10	11.82	21141.5
MitsuiFud	963.38	14.01	968.13	684.38	-	-	-
MitUFJFin	719.50	-3.00	828.30	601.40	3.84	7.03	68580.78
Mizuho Fin	1606.5	-9.00	1683.5	1397	5.16	7.40	29274.86
Murata Mfg	7792	5.00	9410	6604	1.64	15.08	37789.38
Nippon T&T	3752	-6.00	4128	3054	2.97	11.39	97526.24
NipponTT	3752	-6.00	4128	3054	2.97	11.39	97526.24
Nissan Mt	498.00	-2.60	654.30	436.50	-	15.24	15084.24
Nomura	491.20	-7.70	562.20	460.30	4.98	-31.84	11398.5
Nppn Stl	2221.5	12.00	2318.5	1690.5	3.83	3.31	15150.45
Panasonic	1214	9.50	1407	1006.5	2.19	11.57	21380.21
Seven & I	5533	-4.00	6083	4552	1.97	19.85	35198.13
ShnEtsuCh	17685	350.00	20480	14185	1.74	15.97	52155.25
Softbank	6328	181.00	7217	4210	0.74	5.13	78243.58
Sony	11390	-200.00	14745	9213	0.56	13.71	103080.28
SumitomoF	4475	7.00	4484	3672	4.75	8.21	44147.58
Takeda Ph	3851	12.00	4063	2993	4.97	13.02	43728.83
TokioMarine	2667.5	-99.50	2848	1886	8.76	4.09	39051.99
Toyota	1996	-2.00	2375.5	1805	2.71	8.49	233698.49
Mexico (Mex$)							
AmerMvl	19.41	-0.03	21.44	15.66	1.67	15.82	42690.64
FEMSA UBD	150.40	-0.40	169.96	120.63	1.34	123.93	16834.97
WalMrtMex	71.49	-0.33	82.93	64.81	0.70	35.91	64654.51
Netherlands (€)							
ASML Hld	558.70	-20.60	777.50	376.10	0.58	44.95	236306.14
Heineken	87.32	0.76	100.95	77.50	1.08	15.77	52336.09
ING	11.22	-0.07	14.00	7.90	5.13	9.51	43998.66
Unilever	46.45	0.26	48.81	39.36	3.09	23.84	140026.58
Norway (Kr)							
DNB	185.55	2.35	220.50	168.05	9.34	11.91	28938.67
Equinor	357.20	0.55	410.95	217.70	1.37	15.47	113447.07
Telenor	97.38	-0.30	148.80	88.54	9.20	16.52	13630.25
Qatar (QR)							
QatarNtBk	19.40	-0.26	27.00	18.40	2.56	15.91	49203.47
Saudi Arabia (SR)							
AlRajhiBnk	84.40	0.40	117.40	78.60	2.50	16.27	89835
Natnlcombnk	53.70	-1.10	82.00	53.00	2.37	20.50	63988.47
SaudiBasic	84.60	-0.20	141.40	83.00	3.38	12.51	67535.91
SaudiTelec	37.80	-0.50	48.88	37.10	9.30	7.60	50292.7
Singapore (S$)							
DBS	35.07	-0.11	37.49	29.45	3.13	15.21	65880.44
JardnMt US$	48.45	-0.85	62.10	42.60	3.12	9.18	14056.51
OCBC	12.42	-0.05	13.54	10.98	3.01	13.11	40738.95
SingTel	2.80	0.02	2.88	2.31	2.38	50.01	33737.43
UOB	29.84	-0.16	33.33	25.47	2.96	14.05	36474.7
South Africa (R)							
Firstrand	64.54	0.04	79.34	53.25	3.86	12.16	21030.31
MTN Grp	129.26	-3.56	211.49	115.46	-	18.34	14148.17
Naspers N	2610.2	146.91	2853.25	1392.5	0.22	14.61	66033.75
South Korea (KRW)							
HyundMobis	216000	-4500.00	265500	189500	1.81	8.61	15370.83
KoreaElePwr	19650	300.00	25100	16500	6.11	-11.72	9520.81
SK Hynix	91500	-100.00	134000	80400	1.65	6.69	50275.27
SmsungEl	62700	300.00	80800	51800	2.25	11.09	282505.27
Spain (€)							
BBVA	5.36	-0.05	6.12	3.97	6.65	7.60	33644.61
BcoSantdr	2.58	-0.03	3.48	2.32	2.85	5.38	45007.99
CaixaBnk	3.28	0.05	3.64	2.22	0.79	22.48	27519.45
Iberdrola	10.49	0.01	11.49	8.47	3.86	18.74	69411.53
Inditex	23.86	-0.57	32.24	18.55	0.89	26.22	77378.77
Repsol	14.10	0.07	16.23	9.60	4.08	8.96	21309.21
Telefonica	3.49	-0.06	5.06	3.24	9.52	2.65	20954.87
Sweden (SKr)							
AtlasCpcoB	115.10	-1.90	133.60	22.08	6.44	7.63	17163.22
Ericsson	63.67	-1.11	117.32	58.81	3.59	9.32	18688.19
H & M	117.88	-6.98	191.86	98.25	5.42	16.14	16449.31
Investor	189.34	-2.42	228.75	158.22	1.88	8.09	32955.7
Nordea Bk	107.86	1.34	113.78	85.25	13.75	12.50	38491.89
SEB	120.75	2.20	139.50	91.64	8.49	10.03	24854.36
SvnskaHn	106.45	0.95	107.45	80.88	4.77	10.38	19777.45
Swedbank	166.95	1.95	195.30	124.50	8.85	8.86	18054.69
Telia Co	29.17	-0.12	41.70	27.93	6.96	10.23	11396.62
Volvo	189.12	-1.96	218.65	148.24	3.49	12.24	28699.21
Switzerland (SFr)							
ABB	29.18	-0.60	33.86	23.84	2.59	14.64	60816.01
CredSuisse	4.12	-0.16	9.59	3.52	2.20	-6.77	11587.72
Nestle	108.46	0.70	128.90	103.42	2.30	19.70	316394.4
Novartis	79.04	-0.62	88.42	73.01	3.47	8.98	201538.28
Richemont	114.60	-2.10	146.10	90.28	1.55	28.59	63457.31
Roche	312.15	-2.60	404.20	298.60	2.56	21.88	232634.93
Swiss Re	78.86	-0.96	102.20	68.18	6.81	19.93	26559.71
Swisscom	492.30	-0.40	587.40	443.40	4.06	15.32	27052.19
UBS	17.31	-0.20	19.90	13.10	1.82	9.32	64701.21
Zurich Fin	433.30	8.70	461.70	376.00	4.20	15.10	69157.09
Taiwan (NT$)							
Chunghwa Telecom	108.50	-0.50	132.50	105.50	3.89	23.98	27093.81
Formosa PetChem	83.20	-2.70	103.50	75.20	0.70	16.27	25512.52
HonHaiPrc	101.50	-	116.00	99.50	3.89	10.39	45294.41
MediaTek	729.00	7.00	1200	533.00	5.00	10.53	37529.63
TaiwanSem	487.00	7.00	650.00	370.00	2.16	19.68	406498.9
Thailand (THB)							
PTT Explor	33.50	-	41.25	32.75	5.65	9.43	26827.22
United Arab Emirates (Dhs)							
Emirtestele	24.30	0.70	38.98	11.60	2.75	27.17	57535.64
United Kingdom (p)							
Anglo American	3241	-103.50	4292.5	2487.5	5.50	6.42	54141.25
AscBrFd	1528.5	-27.50	2063	1223	0.41	25.26	14391.43
AstraZen	10748	-52.00	11540	8090.32	1.93	1819.84	161885.19
Aviva	442.90	5.50	606.58	341.92	4.82	58.28	21139.38
Barclays	154.40	-2.82	209.45	132.06	1.94	3.75	31333.85
BP	481.35	4.30	503.30	310.53	3.27	17.46	114097.03
BrAmTob	3256.5	28.00	3645	2514	6.62	11.02	72209.4
BT	120.85	-1.90	201.40	113.80	-	11.73	14260.45
Compass	1851	3.50	1970.5	1435	0.76	45.04	36203.93
Diageo	3645.5	31.50	4097	3282.5	1.99	28.04	109146.29
GlaxoSmh	1374.4	20.20	2753.96	1280.92	5.82	15.87	80386.04
Glencore	517.30	-2.20	548.30	346.40	1.71	18.94	88744.61
HSBC	475.50	-4.50	567.20	409.85	3.40	10.39	113386.11
Imperial Brands	2053	26.00	2164	1434.23	6.73	6.86	23286.78
Jardine Mathes.	62.50	-	60.50	47.52	2.41	11.84	18132.75
LlydsBkg	43.13	-0.59	56.00	38.10	5.96	5.99	36968.41
LSE Group	7996	10.00	8612	6230	0.96	81.76	32903.39
Natl Grid	1011	8.00	1271.45	844.29	4.86	23.57	40358.8
Natwest Group	246.90	-3.60	284.42	196.92	4.25	9.72	35136.69
Prudential	985.80	-14.20	1504	782.40	1.19	16.01	30333.65
ReckittB	5784	112.00	6824	5400	3.02	-25.03	48441.67
RELX	2280	24.00	2634.82	2056	2.09	30.08	51956.82
RioTinto	5378	-81.00	6343	4354	9.34	5.62	85785.08
RollsRoyce	87.22	-3.89	161.91	64.44	-	59.33	1929.23
Shell PLC	2370.5	-4.50	2527	1534.2	2.55	12.49	129604.21
StandCh	573.60	-3.20	641.00	406.20	1.54	12.86	22490.09
Tesco	225.90	-1.50	304.10	194.35	4.05	11.50	21997.37
Unilever	4064.5	31.00	4178	3267.5	3.56	20.87	59542.56
Vodafone	97.16	1.27	141.60	94.61	7.96	-217.36	30822.11
WPP	853.20	-17.20	1231.5	713.00	3.11	16.25	12847.38
United States of America ($)							
21stC Fox A	30.21	-0.54	44.95	28.02	1.37	13.93	9137.76
3M	130.33	-0.89	184.20	107.07	3.99	14.67	72038.98
AbbottLb	103.50	0.36	142.60	93.25	1.53	29.92	180459.89
Abbvie	154.50	1.46	175.91	115.01	2.96	27.28	273229.88
Accenture	291.90	-0.75	417.37	242.95	1.11	33.75	194050.21
Activision Bli.	74.36	0.48	82.00	56.40	0.56	24.62	58196.02
Adobe	339.55	-6.41	699.54	274.73	-	38.04	157856.8
Advanced Micro	72.95	-3.42	164.46	54.57	-	32.33	117621.38
AEP	90.34	1.12	105.60	80.22	2.92	20.74	46422.44
Aflac	71.05	0.82	71.37	52.07	1.63	12.66	44178.08
AirProd	295.35	0.81	307.43	216.24	1.78	35.33	65508.33
Allstate	132.65	0.62	144.46	106.11	2.14	8.90	35180.05
Alphabet	99.08	0.64	151.55	83.34	-	1.01	591804.84
Altria	43.61	-0.05	57.05	40.35	7.09	37.06	78156.65
Amazon	97.99	-0.95	188.11	85.87	-	1.72	999660.09
AmerAir	14.07	-0.55	21.42	11.65	-	-4.28	9140.86
AmerExpr	153.31	-0.58	199.55	130.65	1.07	16.96	114558.24
AmerIntGrp	60.69	0.15	65.73	47.05	1.85	6.39	45087.74
AmerTower	220.24	0.66	291.99	178.17	2.08	44.31	102544.98
Amgen	284.06	0.46	296.67	198.64	2.18	31.47	151568.51
Amphenol Corp	79.77	0.07	88.45	61.67	0.86	36.19	47470.69
Analog Devices	161.03	-4.14	191.95	133.48	1.52	61.58	82824.42
Anthem	482.58	12.71	-	-	-	-	-
Aon Cp	292.84	0.95	341.98	246.21	0.60	60.09	60574.81
Apple	148.43	-1.62	182.13	129.04	0.51	28.03	2361162.41
Applied Materi.	105.43	-5.03	167.06	71.12	0.79	16.56	90702.42
Aptiv	109.08	-2.07	179.40	77.96	-	64.03	29555.18
ArcherDan	95.41	0.88	98.88	61.80	1.36	22.68	52411.98
AT&T	18.94	-0.09	21.53	14.46	9.65	7.81	134949.75
Autodesk	225.19	-7.11	335.48	163.20	-	113.41	48609.3
AutomData	255.37	2.05	261.59	192.26	1.32	45.02	105934.57
AutoZone	2471.67	46.07	2560.01	1703.32	-	25.44	46915.8
Avago Tech	514.28	-10.15	677.76	415.07	2.57	33.08	208282.12
BakerHu	30.62	-0.27	39.78	20.42	2.12	80.71	30664.94
Bank of NY	43.85	0.02	64.63	36.22	2.60	12.06	35443.08
BankAm	37.47	-0.24	50.11	29.31	1.83	11.95	300560.42
Baxter	55.32	0.98	89.70	49.83	1.72	24.90	27887.96
BectonDick	223.30	0.93	277.29	215.90	1.32	44.00	63684.07
BerkshHat	465196.46	-3036.29	544389.26	393012.25	-	8.91	277641.34
Biogen	301.54	1.76	305.48	187.16	-	33.02	43422.18
BlackRock	726.18	-14.13	956.63	503.12	2.00	21.64	109069.02
Boeing	173.88	-1.47	232.95	113.02	-	-27.70	103251.89
Booking Holdings	2009.08	7.18	2715.66	1616.85	-	81.22	77930.98
Bristol-Myers	77.21	0.93	81.17	53.22	2.29	28.18	164150.21
Broadcom	514.28	-10.15	677.76	415.07	2.57	33.08	208282.12
Cadence Design	168.94	0.20	194.97	132.32	-	76.96	46342.95
CapOne	101.62	-1.95	160.54	90.27	1.73	4.29	38786.3
CardinalHlth	75.47	1.15	81.57	45.85	2.28	44.53	19783.26
Carnival	9.65	-1.52	23.86	6.11	-	-1.31	10732.06
Caterpillar	233.07	-1.52	239.85	160.60	1.61	22.44	121291.81
Centene Corp	79.74	0.07	98.53	69.51	-	39.83	45150.72
CharlesSch	77.84	-0.46	96.24	59.35	0.81	31.32	141345.43
Charter Comms	387.95	-4.14	703.65	297.66	-	18.06	60393.06
Chevron Corp	186.26	-1.79	189.68	110.73	2.50	26.06	360159.52
Chipotle Mexic.	1533.52	10.05	1850.03	1196.28	-	76.26	42510.88
Chubb	207.14	0.51	218.99	173.78	1.35	12.24	85973.51
Cigna	308.10	2.93	331.05	191.74	1.14	22.31	94198.19
Cintas Corp	447.30	2.49	461.44	343.86	0.71	44.66	45421.22
Cisco	44.45	-0.46	64.29	38.61	2.95	17.97	182617.58
Citigroup	48.74	-0.30	69.11	40.01	3.68	5.47	94392.52
CME Grp	175.76	1.97	256.94	166.58	1.80	27.46	63225.26
Coca-Cola	60.51	-0.13	67.20	52.28	2.44	30.63	261654.68
Cognizant	59.78	-0.18	93.47	51.33	1.41	16.81	30722.22
ColgtPlm	76.27	0.95	85.18	67.84	2.06	34.06	63701.79
Comcast	34.05	-0.23	53.79	28.39	2.58	12.76	146896.96
ConocPhil	130.94	-3.15	138.49	66.06	1.31	24.57	163160.55
Constellation	244.08	0.63	261.53	207.59	1.10	-1251.63	39351.68
Corning	33.43	-0.94	43.47	28.98	2.52	29.74	28271.25
Corteva	65.29	-1.43	68.43	43.74	0.72	31.36	46649.18
Corteva	65.29	-1.43	68.43	43.74	0.72	31.36	46649.18
Costco	524.58	-1.89	612.27	406.51	0.53	47.69	232181.28
CrownCstl	136.09	0.09	208.69	121.71	3.52	58.05	58933.5
CSX	31.29	-0.03	38.63	25.80	1.10	19.68	65773.86
CVS	97.17	-0.56	111.25	86.28	1.81	18.60	127678.16
Danaher	264.90	-5.44	331.69	233.71	0.30	34.42	192833.68
Deere	404.93	-2.05	446.76	283.81	0.85	25.32	122214.31
Delta	34.11	-0.80	46.27	27.20	-	46.61	21867.73
Devon Energy	71.59	-2.03	79.40	35.55	2.42	19.46	46798.38
Digital Realty	110.93	-0.94	176.53	85.76	3.67	21.27	31894.85
DiscFinServ	107.43	3.80	129.12	87.64	1.54	6.86	29352.64
Disney	94.24	-1.27	160.24	86.28	-	62.40	171804.96
Dollar General	259.13	1.87	262.21	183.25	0.57	28.74	58452.4
DominRes	59.56	0.68	88.78	57.95	3.72	21.26	49629.45
DukeEner	98.27	1.14	116.33	83.76	3.48	22.70	75670.22
DuPont	69.76	-0.91	84.08	49.52	1.51	24.60	34656
Eaton	162.24	-0.15	175.72	122.50	1.65	34.60	64522.85
eBay	45.58	-1.44	76.58	35.92	1.39	136.60	24734.4
Ecolab	150.84	-1.93	238.93	131.04	1.14	43.93	42963.46
Edwards Lifesc.	75.70	-0.26	131.73	67.13	-	36.22	46802.32
Eli Lilly	355.34	5.39	369.80	231.87	0.84	66.12	337636.21
Emerson	96.14	-0.04	100.00	72.41	1.85	23.91	56857.2
EOG Res	144.87	-2.43	150.88	80.67	0.98	20.65	85095.12
Equinix	652.54	-4.69	847.10	494.89	1.54	134.39	60384.82
EquityResTP	62.64	0.34	94.32	59.32	3.38	20.82	23672.84
Exelon	38.48	0.24	50.71	29.10	3.49	25.18	38234.22
ExxonMb	113.38	-0.75	114.66	57.96	2.70	23.96	466932.11
Fedex	172.37	-3.89	260.50	141.92	1.46	10.56	44853.12
Fidelity NIS	62.93	-0.94	122.06	56.53	2.18	106.97	37341.37
Fiserv	100.28	-0.07	110.94	87.03	-	57.39	63680.62
FordMtr	14.00	-0.31	25.87	10.61	0.63	3.58	55275.24
Franklin	26.48	-0.44	35.94	20.24	3.75	7.98	13228.31
GenDyn	246.68	0.54	254.99	188.64	1.66	24.32	67725.74
GenElectric	85.85	-1.29	106.21	59.93	0.33	-30.08	93805.56
GenMills	79.18	1.74	82.10	61.41	2.28	23.82	46996.15
GenMotors	38.84	-1.40	67.21	30.33	-	6.60	55181.28
GileadSci	82.81	-0.20	84.14	57.17	3.01	19.13	103857.66
GoldmSchs	382.63	-0.26	407.48	277.84	1.49	7.33	129570.06
Halliburton	38.22	-0.70	43.99	20.77	0.60	24.46	34701.01
HCA Hold	230.85	1.80	279.02	164.47	0.73	12.42	65265.15
Hew-Pack	29.40	-1.16	41.47	24.08	2.51	6.04	29574.6
Hilton Worldwi.	138.34	-0.20	167.99	108.41	-	107.91	37414.89
HiltonWwde	138.34	-0.20	167.99	108.41	-	107.91	37414.89
HomeDep	315.35	3.42	420.61	264.51	1.86	22.91	322827.02
Honywell	214.42	-1.01	223.28	166.63	1.54	30.87	144159.33
HumanaInc	522.03	9.13	571.30	363.73	0.47	26.22	66089.16
IBM	144.40	0.06	146.16	114.56	3.98	31.56	130551.33
IDEXX Laborato.	431.52	-2.86	664.70	317.06	-	57.14	35737.17
IllinoisTool	228.31	0.45	248.11	173.52	1.82	30.55	70133.72
Illumina	231.24	-7.25	397.44	173.45	-	52.25	36374.05
Intcntl Exch	105.89	0.84	138.46	88.60	1.09	16.80	59144.14
Intel	29.78	-0.93	55.00	24.59	4.10	6.98	122916.5
Intuit	395.59	-11.43	716.86	339.36	0.57	56.42	111504.91
John&John	174.73	2.34	186.69	155.72	2.11	25.48	456828.72
JohnsonCn	65.65	-0.76	81.69	45.52	1.54	34.14	45216.95
JPMrgnCh	132.87	-0.07	169.44	101.28	2.51	9.85	389734.93
Kimb-Clark	129.32	1.18	144.53	108.74	3.20	27.64	43642.79
KinderM	18.44	-0.22	20.20	15.01	5.29	45.36	41446.34
KLA Corp	371.44	-14.11	442.44	250.20	0.92	21.77	52639.86
Kraft Heinz	37.56	0.52	44.87	32.73	3.74	52.16	46002.25
Kroger	48.04	1.17	62.78	40.18	1.44	24.97	34383.76
LasVegasSd	43.37	-0.56	48.27	28.88	-	-32.71	33141.89
LibertyGbl	20.05	-0.18	29.56	15.22	-	0.97	3445.78
Lilly (E)	355.34	5.39	369.80	231.87	0.84	66.12	337636.21
Linde	335.47	2.91	346.50	262.47	1.11	52.19	165848.27
Lockheed	468.98	1.73	494.66	328.20	2.08	22.93	122907.45
Lowes	218.65	9.81	263.31	170.12	1.22	20.49	135713.08
Lyondell	83.23	-2.05	117.22	71.46	4.68	5.65	27101.72
Marathon Ptl	119.60	-0.41	123.12	59.55	1.70	67.43	56049.49
Marsh&M	165.59	1.97	183.14	142.80	1.42	29.01	82134.21
MasterCard	343.10	-0.41	399.92	276.87	0.58	44.61	327249.82
McDonald's	273.28	5.44	281.67	217.68	1.69	31.00	200156.8
McKesson	366.78	13.10	401.78	215.27	0.43	47.31	52006.3
Medtronic	82.67	-0.73	118.80	79.20	2.65	25.69	109881.1
Merck	100.38	0.78	103.76	71.50	2.31	23.52	254503.05
Meta	196.64	0.99	384.33	169.00	-	15.41	450997.53
Metlife	74.45	0.17	75.63	57.05	2.24	11.60	58413.93
Microsoft	242.27	0.30	349.67	213.43	0.83	29.38	1805995.21
Mnstr Bvrg	98.94	0.80	100.47	71.78	-	43.84	51621.31
MondelezInt	65.01	0.36	69.47	54.72	1.80	24.35	88774.63
Monsanto	10.00	-0.01	10.01	9.66	-	52.18	249.88
MorganStly	89.82	-0.68	109.73	72.05	2.05	12.74	151805.63
Netflix	304.38	-5.82	700.99	162.71	-	30.84	135455.38
NextEraE	84.39	1.48	92.91	67.22	1.69	126.25	167696.74
Nike	106.06	-0.65	177.75	82.22	0.97	31.57	134021.1
NorfolkS	250.70	2.56	296.87	203.65	1.46	23.58	58040.61
Northrop	504.10	3.38	556.27	345.90	1.07	13.19	77586.35
NXP	167.30	-7.51	239.91	132.08	1.18	28.06	43353.26
Occid Pet	72.76	-1.68	77.13	26.05	0.05	40.22	66128.05
Oracle	79.81	0.63	106.34	60.78	1.42	34.37	215181.03
Pepsico	178.51	1.32	183.58	153.37	2.09	37.03	245927.98
Perrigo	33.03	0.27	43.90	31.32	2.55	-38.38	4446.48
Pfizer	48.43	-0.14	61.71	41.45	2.83	14.03	271856.75
Phillips66	108.99	-1.15	113.53	67.08	2.92	41.79	51512.14
PhilMorris	95.24	0.57	112.48	82.85	4.52	18.60	147633.52
PNCFin	163.53	-0.61	214.50	143.52	2.58	14.66	65954.76
PPG Inds	129.25	-0.26	172.78	107.06	1.61	32.30	30376.12
ProctGmbl	141.89	1.40	165.35	122.18	2.21	27.46	338478.52
Prudntl	108.14	0.23	124.22	85.46	3.74	6.31	39795.52
PublStor	294.82	5.72	421.76	270.73	2.38	34.02	51781.71
Qualcomm	121.08	-4.95	192.68	101.93	1.95	15.79	135725.08
Raytheon	95.22	-0.57	106.02	79.00	1.85	42.03	139979.19
Regen Pharm	738.05	9.32	769.63	538.01	-	11.68	79033.19
S&P Global	355.27	0.61	484.21	279.32	0.76	32.34	115745.34
Salesforce	155.98	-6.10	309.90	136.04	-	118.89	155975
Schlmbrg	53.46	-1.22	56.04	27.65	0.82	46.12	75798.86
Sempra Energy	158.75	3.32	176.47	119.56	2.43	45.09	49900.42
Shrwin-Will	240.33	-0.26	354.15	195.24	0.80	39.21	62279.94
SimonProp	117.34	-2.82	171.12	86.02	5.35	19.54	38363.82
SouthCpr	59.23	-1.41	79.32	42.42	4.74	15.37	45790.62
Starbucks	97.38	-0.45	117.34	68.39	1.66	29.97	111733.81
StateSt	79.51	0.05	103.76	58.62	2.41	12.59	29175.41
Stryker	221.27	-0.70	279.28	188.84	1.03	48.37	83735.19
Sychrony Fin	35.46	-0.47	50.43	27.22	2.24	5.32	15973.95
T-MobileUS	146.15	1.15	154.38	101.51	-	69.06	181833.13
Target	157.40	-21.59	267.53	137.16	1.78	12.59	72443.04
TE Connect	126.51	-0.53	166.44	104.76	1.37	19.57	40461.23
Tesla Mtrs	187.91	-6.51	400.65	177.12	-	43.67	593373.26
TexasInstr	174.11	-3.46	199.90	144.46	2.12	24.01	158017.31
TheTrvelers	181.06	1.56	187.98	145.40	1.76	12.71	42429.79
ThrmoFshr	534.93	-11.16	668.94	475.77	0.17	31.31	209797.17
TJX Cos	77.71	2.59	77.97	53.69	1.19	32.47	90225.43
Truist Financial Corp	46.29	-0.04	66.10	40.01	3.53	11.79	61416.01
Twitter	53.70	0.35	60.16	31.30	-	-224.30	41093.72
UnionPac	212.12	1.46	278.94	183.70	1.92	22.32	130410.32
UPS	178.66	-2.81	233.72	154.87	2.01	13.86	130389.81
USBancorp	43.30	-0.47	60.98	38.39	3.57	9.67	64336.16
UtdHlthcre	512.50	9.49	558.10	436.00	0.96	32.28	478849.23
ValeroEngy	136.28	-3.46	146.81	65.13	2.53	68.37	52537.18
Verizon	37.83	0.13	55.51	34.55	5.88	8.10	158879.09
VertexPharm	306.10	0.82	318.38	179.96	-	38.69	78573.25
VF Cp	32.08	-1.37	78.91	26.46	5.39	11.98	12465.2
Visa Inc	210.11	0.12	235.85	174.60	0.56	39.62	343532.93
Walgreen	40.89	0.24	53.46	30.39	4.12	6.74	35360.74
WalMartSto	148.41	0.97	160.77	117.27	1.31	34.38	402820.05
Walt Disney	94.24	-1.27	160.24	86.28	-	62.40	171804.96
Waste Manage.	158.85	1.76	175.98	138.58	1.27	42.17	65202.23
WellsFargo	46.38	-0.33	60.30	36.54	1.46	10.67	176730.57
Williams Cos	33.78	-0.13	37.97	24.86	4.26	31.02	41149.43
Workday	155.18	-5.56	307.81	128.72	-	1458.86	31191.18
Yum!Brnds	124.72	1.41	139.85	103.97	1.41	27.26	35132.11
Zoetis	150.00	0.18	249.27	124.15	0.59	40.01	69910.8
Zoom	83.48	-3.96	268.88	70.44	-	20.93	20951.41
Venezuela (VEF)							
Bco de Vnzla	1.30	0.10	2.14	0.32	140.90	-	503.45
Bco Provncl	3.17	-	3.30	1.70	-	0.00	126.23

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Naspers N	2610.20	2463.29	146.91	5.96	504.00	23.9	15.60
ChinaMBank	37.25	36.90	0.35	0.95	7.05	23.3	21.86
PingAnIns	44.45	44.15	0.30	0.68	8.35	23.1	16.38
Ch OSLnd&Inv	19.96	20.30	-0.34	-1.67	3.68	22.6	-2.35
TaiwanSem	487.00	480.00	7.00	1.46	88.00	22.1	18.20
Advanced Micro	72.95	76.37	-3.42	-4.48	13.03	21.7	30.87
China Vanke	13.34	14.18	-0.84	-5.92	2.28	20.6	-3.18
Tencent	294.40	288.00	6.40	2.22	48.60	19.8	18.22
Netflix	304.38	310.20	-5.82	-1.88	49.72	19.5	32.44
VF Cp	32.08	33.45	-1.37	-4.10	5.18	19.3	10.83
SHOP	52.34	53.24	-0.90	-1.69	8.25	18.7	44.75
MediaTek	729.00	722.00	7.00	0.97	109.00	17.6	24.62
Lowes	218.65	208.84	9.81	4.69	32.02	17.2	15.94
Franklin	26.48	26.92	-0.44	-1.63	3.78	16.7	21.97
HK Exc&Clr	304.80	309.20	-4.40	-1.42	43.20	16.5	23.76
Zoom	83.48	87.44	-3.96	-4.53	11.64	16.2	15.69
Autodesk	225.19	232.30	-7.11	-3.06	30.58	15.7	18.73
Vale	82.98	83.31	-0.33	-0.40	11.11	15.5	18.96
Nike	106.06	106.71	-0.65	-0.61	13.96	15.2	21.25
Workday	155.18	160.74	-5.56	-3.46	20.23	15.0	11.23

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Bradesco	13.02	13.10	-0.08	-0.61	-2.87	-18.1	-20.11
Fuji Hvy Ind	2263.00	2316.00	-53.00	-2.29	-251.00	-10.0	-1.09
ItauHldFin	22.71	22.90	-0.19	-0.83	-2.24	-9.0	-5.41
Cielo	5.07	5.11	-0.04	-0.78	-0.49	-8.8	-11.48
Softbank	6328.00	6147.00	181.00	2.94	-601.00	-8.7	11.68
Nippon T&T	3752.00	3758.00	-6.00	-0.16	-300.00	-7.4	-5.19
NipponTT	3752.00	3758.00	-6.00	-0.16	-300.00	-7.4	-5.19
Vodafone	97.16	95.89	1.27	1.32	-6.94	-6.7	-2.43
KDDI	4036.00	4046.00	-10.00	-0.25	-282.00	-6.5	-4.78
CardinalHlth	75.47	74.32	1.15	1.55	-4.70	-5.9	10.87
HumanaInc	522.03	512.90	9.13	1.78	-31.44	-5.7	4.27
CntJpRwy	15900.00	16195.00	-295.00	-1.82	-955.00	-5.7	-7.52
PTT Explor	33.50	33.50	0.00	0.00	-2.00	-5.6	-2.90
Northrop	504.10	500.72	3.38	0.67	-29.05	-5.4	8.57
WalMrtMex	71.51	71.82	-0.31	-0.43	-4.04	-5.3	0.03
UtdHlthcre	512.50	503.01	9.49	1.89	-28.17	-5.2	-0.12
Cigna	308.10	305.17	2.93	0.96	-16.89	-5.2	4.31
NatAusBk	30.31	30.49	-0.18	-0.59	-1.64	-5.1	-2.48
McKesson	366.78	353.68	13.10	3.70	-19.45	-5.0	3.98
Centene Corp	79.74	79.67	0.07	0.08	-4.15	-4.9	7.27

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Nov 16	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	113.75	4.24	0.00	0.12	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

BONDS: GLOBAL INVESTMENT GRADE

Nov 16	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
FleetBoston Financial Corp.	01/28	6.88	BBB+	Baa1	A-	129.00	2.54	-0.01	-0.05	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	117.21	2.47	0.00	0.32	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A-	127.69	2.72	-0.01	0.06	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	128.27	2.80	0.00	-0.11	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

Nov 16	Rate	Current	Since	Last
US	Fed Funds	3.00-3.25	21-09-2022	2.25-2.5
US	Prime	6.25	22-09-2022	5.50
US	Discount	3.25	22-09-2022	2.50
Euro	Repo	0.53	01-11-2022	0.374
UK	Repo	3.00	02-11-2022	2.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

Nov 16 (Libor: Nov 15)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	3.81357	-0.005	-0.004	0.017	3.90357	4.64971	5.08500	5.46014
Euro Libor	-0.64957	-0.064	0.000	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	0.000	-0.002	2.96050	3.52920	4.09580	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.06005	-0.04097	0.03035	0.04867
Euro Euribor				0.009	1.41400	1.79500	2.30000	2.85200
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				0.030	3.89000	4.54000	4.94000	
Euro CDs				-0.010	1.39000	1.75000	2.17000	

Nov 16	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	1.16	1.46	1.19	1.49	1.24	1.54	1.60	1.90	2.02	2.32	2.41	2.71
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	3.63	3.83	3.65	3.85	3.79	3.99	4.44	4.64	4.84	5.04	5.11	5.31
Japanese Yen	-0.15	0.05	-0.20	0.00	-0.20	0.00	-0.15	0.05	-0.10	0.20	-0.05	0.25

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	195.74	0.64	4.57	-10.94	4.37	-10.78
Corporates(£)	324.56	0.36	2.89	-18.00	10.12	-18.46
Corporates(€)	208.27	0.28	1.51	-13.77	2.58	-14.28
Eurozone Sov(€)	214.04	0.58	0.78	-15.87	2.51	-16.77
Gilts(£)	280.45	0.40	2.40	-21.98	12.84	-22.14
Overall(£)	287.14	0.37	2.40	-20.68	11.63	-20.90
Overall(€)	209.00	0.49	1.02	-15.27	2.51	-16.05
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	608.93	-11.22	-	-	10.86	-24.19
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES

	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	477.46	12.42	-47.84	-143.24	688.92	465.00
Europe 5Y	96.12	3.06	-11.52	-33.91	142.08	93.05
Japan 5Y	81.77	-1.33	-10.42	-24.73	119.29	81.77
Senior Financials 5Y	105.72	2.89	-11.51	-38.29	155.06	102.80
Markit CDX						
Emerging Markets 5Y	241.02	-1.76	-29.06	-77.37	335.29	241.02
Nth Amer High Yld 5Y	486.77	-4.98	-32.55	-57.55	625.47	486.06
Nth Amer Inv Grade 5Y	82.70	-0.71	-6.04	-11.73	110.98	82.70

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	Nov 16	Day Chng	Prev	52 wk high	52 wk low
VIX	24.11	-0.43	24.54	38.93	16.03
VXD	21.83	-0.37	22.20	45.37	3.27
VXN	30.11	-0.19	30.30	44.05	9.94
VDAX	22.62	0.69	21.93	93.30	-

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility. ‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	11/22	2.25	99.99	2.91	0.00	0.01	0.20	2.68
	05/32	1.25	80.15	3.75	-0.01	-0.28	-0.25	-
	02/50	1.00	93.07	1.75	0.03	-0.20	-0.32	1.58
Austria	02/29	0.50	88.36	2.53	-0.05	-0.20	-0.21	2.73
	02/47	1.50	76.85	2.83	-0.07	-0.13	-0.41	2.41
Belgium	06/27	0.80	93.57	2.29	-0.04	-0.14	-0.16	2.67
	06/47	1.60	75.36	3.04	-0.07	-0.11	-0.39	2.33
Canada	03/25	1.25	94.42	3.82	0.00	-0.27	-0.26	2.56
	06/30	1.25	87.40	3.14	-0.01	-0.33	-0.37	1.50
	12/48	2.75	90.73	3.28	-0.03	-0.26	-0.18	1.22
Denmark	11/29	0.50	88.18	2.35	-0.03	-0.16	-0.25	2.48
	11/52	0.25	57.16	2.22	-0.07	-0.19	-0.52	1.92
Finland	09/24	0.00	96.15	2.17	-0.01	-0.07	0.06	2.83
	09/29	0.50	86.85	2.63	-0.05	-0.17	-0.17	2.82
France	05/28	0.75	91.78	2.35	-0.04	-0.14	-0.18	2.60
	05/48	2.00	83.18	2.95	-0.08	-0.13	-0.37	2.27
Germany	08/29	0.00	87.30	2.04	-0.04	-0.15	-0.15	2.43
	08/50	0.00	56.98	2.05	-0.07	-0.13	-0.36	1.99
Greece	01/23	3.50	100.41	1.42	0.00	0.06	0.11	1.65
	01/28	3.75	100.17	3.71	-0.09	-0.46	-0.63	3.06
Ireland	-	-	-	-	-	-	-	-
	05/26	1.00	95.79	2.27	-0.01	-0.09	0.04	2.67
	02/45	2.00	84.58	2.96	-0.06	-0.13	-0.38	2.34
Italy	02/25	0.35	94.92	2.74	-0.10	-0.27	-0.43	2.84
	05/30	0.40	92.20	1.50	-0.11	-0.20	-0.81	2.42
	03/48	3.45	89.51	4.12	-0.17	-0.28	-0.61	2.38
Japan	04/25	0.05	100.02	0.04	0.01	0.00	-0.01	-0.03
	12/29	0.10	99.62	0.15	-0.01	-0.08	-0.07	0.18
	12/49	0.40	78.31	1.36	-0.03	-0.12	0.00	0.69
Netherlands	07/27	0.75	93.71	2.18	-0.03	-0.13	-0.12	2.63
	01/47	2.75	107.01	2.37	-0.07	-0.15	-0.42	2.26
New Zealand	05/31	1.50	80.93	4.19	-0.05	-0.45	-0.28	1.60
	09/40	2.50	119.89	2.32	0.00	-0.24	-0.37	1.38
Norway	08/30	1.38	87.59	3.21	-0.08	-0.33	-0.41	1.53
Poland	01/23	2.50	99.20	6.83	-0.06	-0.60	-0.74	4.02
	07/27	2.50	81.84	7.20	-0.26	-0.86	-0.77	4.15
	04/47	4.00	63.24	7.25	-0.23	-1.03	0.15	3.73
Portugal	04/27	4.13	106.90	2.45	-0.05	-0.13	-0.11	2.66
Spain	-	-	-	-	-	-	-	-
	10/29	0.60	86.47	2.77	-0.07	-0.18	-0.35	2.56
	10/46	2.90	91.59	3.42	-0.09	-0.15	-0.46	2.30
Sweden	06/30	0.13	115.63	-0.16	0.00	-0.09	0.08	1.64
	03/39	3.50	121.15	1.97	0.01	-0.14	-0.10	1.43
Switzerland	04/28	4.00	116.32	0.89	-0.04	-0.03	-0.23	1.17
	06/29	0.00	94.23	0.91	-0.04	-0.06	-0.28	1.11
United Kingdom	07/23	0.75	98.46	3.05	0.00	-0.10	-0.46	2.58
	07/27	1.25	91.08	3.32	-0.03	-0.18	-0.97	2.65
	07/47	1.50	66.13	3.58	-0.02	-0.27	-1.29	2.44
United States	-	-	-	-	-	-	-	-
	03/25	0.50	91.67	4.23	-0.06	-0.36	-0.27	3.26
	02/30	1.50	85.46	3.82	-0.06	-0.33	-0.29	2.29
	02/50	0.25	68.27	1.71	-0.07	-0.17	-0.11	-

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

GILTS: UK CASH MARKET

Nov 16	Price £	Red Yield	Change in Yield Day	Change in Yield Week	Change in Yield Month	Change in Yield Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	98.55	2.92	-2.34	-4.58	-16.57	495.92	100.82	97.34	34.36
Tr 0.125pc '24	96.57	3.05	-3.17	-6.44	-20.16	425.86	99.44	94.34	35.55
Tr 2pc '25	97.44	2.96	-3.58	-7.21	-25.25	393.33	105.86	93.15	39.93
Tr 0.125pc '26	91.29	3.00	-4.15	-7.69	-27.54	368.75	98.77	86.33	35.32
Tr 1.25pc '27	91.72	3.17	-3.94	-7.58	-25.76	352.86	104.30	85.65	40.99
Tr 0.875pc '29	86.06	3.13	-4.57	-8.48	-26.87	272.62	102.36	78.21	43.62
Tr 4.25pc '32	109.12	3.14	-4.56	-8.99	-26.98	217.17	135.62	98.13	40.33
Tr 4.25pc '36	109.04	3.40	-4.76	-7.36	-26.25	211.93	145.94	94.91	31.68
Tr 4.5pc '42	114.52	3.49	-4.64	-6.68	-28.19	203.48	169.96	93.79	28.35
Tr 3.75pc '52	108.37	3.31	-4.89	-7.02	-30.61	200.91	180.27	82.51	25.11
Tr 4pc '60	120.56	3.07	-5.25	-8.08	-34.26	200.98	213.01	87.32	25.13

Gilts benchmarks & non-rump undated stocks. Closing mid-price in pounds per £100 nominal of stock.

GILTS: UK FTSE ACTUARIES INDICES

Price Indices Fixed Coupon	Nov 16	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	82.02	0.27	2358.70	1.79	-3.95	3.07
2 5 - 10 Years	151.97	1.01	3205.53	5.84	-12.69	3.16
3 10 - 15 Years	164.25	1.75	3773.87	9.91	-18.95	3.37
4 5 - 15 Years	154.02	1.22	3342.86	6.95	-14.65	3.24
5 Over 15 Years	240.56	3.19	4117.23	21.39	-33.15	3.26
7 All stocks	142.81	1.61	3176.02	9.92	-19.87	3.24

Index Linked	Nov 16	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	326.74	0.16	2.01	4.15	2762.85	2.27	5.35
2 Over 5 years	595.78	1.69	22.48	-33.69	4541.15	22.64	-33.39
3 5-15 years	470.23	1.05	12.31	-12.50	3803.08	12.49	-11.83
4 Over 15 years	695.80	2.07	29.37	-41.95	5148.85	29.52	-41.78
5 All stocks	556.92	1.46	18.95	-29.86	4330.52	19.13	-29.49

Yield Indices	Nov 16	Nov 15	Yr ago		Nov 16	Nov 15	Yr ago
5 Yrs	3.03	3.17	0.66	20 Yrs	3.47	3.64	1.19
10 Yrs	3.28	3.44	0.97	45 Yrs	2.92	3.10	0.93
15 Yrs	3.46	3.63	1.14				

Real yield	inflation 0% Nov 16	inflation 0% Dur yrs	inflation 0% Previous	inflation 0% Yr ago	inflation 5% Nov 16	inflation 5% Dur yrs	inflation 5% Previous	inflation 5% Yr ago
Up to 5 yrs	-0.56	1.45	-1.64	-3.69	-1.29	1.46	-2.17	-4.01
Over 5 yrs	-0.05	19.65	-0.09	-2.49	-0.09	19.72	-0.11	-2.50
5-15 yrs	-0.27	8.55	-0.44	-3.04	-0.40	8.56	-0.52	-3.12
Over 15 yrs	0.00	25.93	-0.02	-2.43	-0.03	25.95	-0.03	-2.44
All stocks	-0.05	16.99	-0.11	-2.50	-0.10	17.09	-0.13	-2.52

See FTSE website for more details www.ftse.com/products/indices/gilts

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COMMODITIES

www.ft.com/commodities

Energy		Price*	Change
Crude Oil†	Dec	86.11	-0.81
Brent Crude Oil‡		91.97	-1.89
RBOB Gasoline†	Dec	2.50	-0.01
Natural Gas†	Dec	5.85	-0.19
Base Metals (♠ LME 3 Months)			
Aluminium		2406.00	-31.00
Aluminium Alloy		1675.00	-905.00
Copper		8271.50	-114.00
Lead		2159.50	-36.50
Nickel		27750.00	-1790.00
Tin		22900.00	-570.00
Zinc		3047.00	-68.50
Precious Metals (PM London Fix)			
Gold		1771.35	2.45
Silver (US cents)		2194.00	47.00
Platinum		1031.00	18.00
Palladium		2084.00	80.00
Bulk Commodities			
Iron Ore		92.29	0.20
Baltic Dry Index		1288.00	-12.00
Richards Bay ICE Futures		200.10	12.45

Agricultural & Cattle Futures		Price*	Change
Corn♦	Dec	658.75	-8.00
Wheat♦	Dec	803.50	-24.75
Soybeans♦	Jan	1441.50	-15.75
Soybeans Meal♦	Dec	407.70	-2.20
Cocoa (ICE Liffe)✠	Dec	2011.00	13.00
Cocoa (ICE US)♥	Dec	2499.00	-1.00
Coffee(Robusta)✠	Jan	1831.00	13.00
Coffee (Arabica)♥	Dec	157.75	1.00
White Sugar✠		546.50	-4.80
Sugar 11♥		20.32	0.03
Cotton♥	Dec	89.59	0.85
Orange Juice♥	Jan	200.70	2.70
Live Cattle♣	Dec	151.23	-0.35
Feeder Cattle♣	May	134.88	-
Lean Hogs♣	Dec	85.50	0.63

	Nov 15	% Chg Month	% Chg Year
S&P GSCI Spt	633.10	0.19	9.08
DJ UBS Spot	115.83	1.96	12.15
TR/CC CRB TR	306.86	3.14	21.57
LEBA EUA Carbon	58.91	-1.98	129.94
LEBA UK Power	1048.00	-37.43	-39.60

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ✠ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price Nov 15	Yield Nov 15	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	111.37	1.345	1.318	0.30	5.25	72701.92	8
Fr 0.25%' 24	103.25	-1.635	-1.673	0.55	17.92	250767.24	17
Swe 1.00%' 25	125.34	-0.367	-0.387	0.70	35.38	218336.69	6
UK 0.125%' 24	104.75	-3.294	-3.286	0.54	15.24	602039.65	31
UK 2.50%' 24	379.56	-2.310	-2.297	0.72	6.82	602039.65	31
UK 2.00%' 35	254.29	-0.328	-0.282	5.91	9.08	602039.65	31
US 0.625%' 24	98.14	2.257	2.260	-0.09	40.98	1599911.72	47
US 3.625%' 28	110.00	1.684	1.762	0.68	16.78	1599911.72	47

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	3.75	1.72	-0.07	Netherlands	2.18	0.15	-1.64
Austria	2.53	0.50	-1.29	New Zealand	4.19	2.16	0.37
Canada	3.14	1.10	-0.68	Norway	3.21	1.17	-0.61
Denmark	2.35	0.32	-1.47	Portugal	2.45	0.42	-1.37
Finland	2.63	0.59	-1.19	Spain	2.77	0.73	-1.05
Germany	2.04	0.00	-1.78	Sweden	-0.16	-2.20	-3.98
Italy	1.50	-0.53	-2.32	Switzerland	0.91	-1.13	-2.91
Japan	0.15	-1.88	-3.67	United States	3.82	1.78	0.00

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

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MANAGED FUNDS SERVICE

abrdn Capital (CI) Limited (JER)
PO Box 189, St Helier, Jersey, JE4 9RU 01534 709130
FCA Recognised
abrdn Capital Offshore Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Bridge Fund	£ 2.1928	-	0.0027	1.90
Global Equity Fund	£ 3.2857	-	0.0157	1.19
Global Fixed Interest Fund	£ 0.7343	-	0.0040	6.14
Income Fund	£ 0.6329	-	0.0002	3.31
Sterling Fixed Interest Fund	£ 0.6801	-	0.0032	3.66
UK Equity Fund	£ 1.9551	-	-0.0051	3.85

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Algebris Financial Credit I EUR	€ 169.40	-	0.81	-
Algebris Financial Credit R EUR	€ 145.79	-	0.69	-
Algebris Financial Credit Rd EUR	€ 89.20	-	0.42	-
Algebris Financial Income I EUR	€ 175.41	-	1.02	0.00
Algebris Financial Income R EUR	€ 159.70	-	0.93	0.00
Algebris Financial Income Rd EUR	€ 97.88	-	0.57	4.41
Algebris Financial Equity B EUR	€ 159.63	-	1.60	0.00
Algebris Financial Equity R EUR	€ 134.32	-	1.34	0.00
Algebris IG Financial Credit I EUR	€ 93.73	-	0.73	-
Algebris IG Financial Credit R EUR	€ 92.30	-	0.71	-
Algebris Global Credit Opportunities I EUR	€ 122.63	-	0.53	-
Algebris Global Credit Opportunities R EUR	€ 119.74	-	0.51	-
Algebris Global Credit Opportunities Rd EUR	€ 105.26	-	0.45	-
Algebris Core Italy I EUR	€ 141.39	-	-0.33	0.00
Algebris Core Italy R EUR	€ 134.28	-	-0.30	0.00

The Antares European Fund Limited
Other International

Fund	Bid	Offer	D+/-	Yield
AEF Ltd Usd	$ 530.46	-	-40.36	0.00
AEF Ltd Eur	€ 490.06	-	-36.24	0.00

Artemis Fund Managers Ltd (1200)F (UK)
57 St. James's Street, London SW1A 1LD 0800 092 2051
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Artemis Corporate Bond I Acc	97.11	-	0.01	3.02
Artemis Positive Future Fund	69.19	-	-0.59	0.00
Artemis Target Return Bond I Acc	103.75	-	0.01	2.84

Ashmore Group
61 Aldwych, London WC2B 4AE. Dealing team: +352 27 62 22 233
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Markets Equity Fund	$ 115.41	-	3.29	0.00
Emerging Markets Equity ESG Fund	$ 130.27	-	3.72	0.00
Emerging Markets Frontier Equity Fund	$ 174.50	-	-1.19	0.40
Emerging Markets Blended Debt Fund	$ 50.75	-	0.45	6.88
Emerging Markets Blended Debt ESG Fund	$ 81.22	-	0.85	0.00
Emerging Markets Active Equity Fund	$ 117.80	-	3.72	0.00
Emerging Markets Corporate Debt Fund	$ 57.33	-	-0.43	9.89
Emerging Markets Debt Fund	$ 55.20	-	0.62	8.44
Emerging Markets Local Currency Bond Fund	$ 59.22	-	0.35	4.44

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	D+/-	Yield
American Dynamic	$ 6442.86	-	348.92	0.00
American One	$ 6623.94	-	353.97	0.00
Bond Global	€ 1581.48	1581.48	10.04	0.00
Eurocroissance	€ 1326.30	-	76.31	0.00
Far East	$ 977.41	-	91.79	-

Blue Whale Investment Funds ICAV (IRE)
www.bluewhale.co.uk, info@bluewhale.co.uk
FCA Recognised - Ireland UCITS

Fund	Bid	Offer	D+/-	Yield
Blue Whale Growth USD T	$ 8.92	-	0.06	0.00

Brooks Macdonald International Fund Managers Limited (JER)
5 Anley Street, St Helier, Jersey, JE2 3QE
+44 (0) 1534 700 104 (Int.) +44 (0) 800 735 8000 (UK)
Brooks Macdonald International Investment Funds Limited

Fund	Bid	Offer	D+/-	Yield
Euro High Income	€ 1.2166	-	0.0008	2.50
High Income	£ 0.6529	-	0.0017	3.77
Sterling Bond	£ 1.2426	-	0.0035	2.06

Brooks Macdonald International Multi Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Balanced Strategy A	£ 0.9142	-	-0.0007	0.60
Balanced Strategy	£ 0.9135	-	-0.0008	0.09
Cautious Balanced Strategy A	£ 0.8864	-	-0.0002	1.16
Growth Strategy A	£ 0.9199	-	-0.0021	0.52
High Growth Strategy A	£ 0.9161	-	-0.0030	0.13
Cautious Balanced Strategy	£ 1.2399	-	-0.0003	0.00
Growth Strategy	£ 1.9256	-	-0.0043	0.00
High Growth Strategy	£ 2.6873	-	-0.0088	0.00
US$ Growth Strategy	$ 1.6356	-	0.0120	0.00

Dealing Daily. Initial Charge Nil for A classes and up to 2% for other classes

CG Asset Management Limited (IRL)
25 Moorgate, London, EC2R 6AY
Dealing: Tel. +353 1434 5098 Fax. +353 1542 2859
FCA Recognised
CG Portfolio Fund Plc

Fund	Bid	Offer	D+/-	Yield
Absolute Return Cls M Inc	£ 136.30	136.30	-0.45	1.36
Capital Gearing Portfolio GBP V	£ 182.76	182.76	-0.59	1.05
Capital Gearing Portfolio GBP P	£ 37577.14	37577.14	-121.30	1.05
Dollar Fund Cls D Inc	£ 167.47	167.47	-0.85	1.42
Dollar Hedged GBP Inc	£ 92.45	92.45	0.73	1.71
Real Return Cls A Inc	£ 201.32	201.32	-1.42	1.46

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
CAM-GTF VCC	$ 276934.95	276934.95	-141.90	-
CAM GTi VCC	$ 780.49	-	-32.39	-
RAIC VCC	$ 1.64	1.64	0.03	2.06

Dodge & Cox Worldwide Funds (IRL)
48-49 Pall Mall, London SW1Y 5JG.
www.dodgeandcox.worldwide.com 020 3713 7664
FCA Recognised
Dodge & Cox Worldwide Funds plc - Global Bond Fund

Fund	Bid	Offer	D+/-	Yield
EUR Accumulating Class	€ 15.76	-	0.05	0.00
EUR Accumulating Class (H)	€ 10.18	-	0.06	-
EUR Distributing Class	€ 11.56	-	0.04	0.96
EUR Distributing Class (H)	€ 7.40	-	0.04	-
GBP Distributing Class	£ 12.36	-	-0.04	0.87
GBP Distributing Class (H)	£ 7.91	-	0.04	1.16
USD Accumulating Class	$ 11.77	-	0.06	0.00

Dodge & Cox Worldwide Funds plc-Global Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 28.30	-	0.41	-
GBP Accumulating Share Class	£ 39.23	-	0.21	0.00
GBP Distributing Share class	£ 26.48	-	0.15	-
EUR Accumulating Share Class	€ 41.05	-	0.51	-
GBP Distributing Class (H)	£ 13.16	-	0.19	0.57

Dodge & Cox Worldwide Funds plc-U.S. Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 38.23	-	0.20	0.00
GBP Accumulating Share Class	£ 50.13	-	-0.18	-
GBP Distributing Share Class	£ 30.09	-	-0.11	0.16
EUR Accumulating Share Class	€ 47.89	-	0.16	0.00
GBP Distributing Class (H)	£ 15.20	-	0.08	0.20

Dragon Capital
www.dragoncapital.com
Fund information:info@dragoncapital.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Vietnam Equity (UCITS) Fund A USD	$ 20.56	-	-0.82	0.00

EdenTree Investment Management Ltd (UK)
PO Box 3733, Swindon, SN4 4BG, 0800 358 3010
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
EdenTree Short Dated Bond Cls B	93.04	-	0.11	-

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Smaller Cos Cls One Shares	€ 50.93	-	-0.11	0.00
Smaller Cos Cls Two Shares	€ 32.52	-	-0.08	0.00
Smaller Cos Cls Three Shares	€ 16.23	-	-0.04	0.00
Smaller Cos Cls Four Shares	€ 21.39	-	-0.05	0.00

Fidelity Investments International
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Mkts NAV	£ 7.21	-	-0.16	2.07

FIL Investment Services (UK) Limited (1200)F (UK)
Beech Gate, Millfield Lane, Lower Kingswood, Tadworth, KT20 6RP
Callfree: Private Clients 0800 414161
Broker Dealings: 0800 414 181
OEIC Funds

Fund	Bid	Offer	D+/-	Yield
Index Sterling Corporate Bond Fund P-ACC-GBP	£ 0.82	-	0.00	2.03
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£ 0.92	-	0.00	0.15
American Fund W-ACC-GBP	£ 52.61	-	0.14	0.00
Cash Fund W-ACC-GBP	£ 1.03	-	0.01	0.00
Emerg Europe, Middle East and Africa Fund W-ACC-GBP	£ 1.67	-	0.01	4.94
Sustainable Global Equity Fund W-ACC-GBP	£ 33.04	-	-0.11	0.00
Global High Yield Fund W-ACC-GBP	£ 13.38	-	0.06	5.84
Japan Fund W-ACC-GBP	£ 5.51	-	-0.03	-
Japan Smaller Companies Fund W-ACC-GBP	£ 3.51	-	0.00	0.64
Select 50 Balanced Fund PI-ACC-GBP	£ 1.13	-	0.00	1.04
Special Situations Fund W-ACC-GBP	£ 41.77	-	-0.26	2.08
Short Dated Corporate Bond Fund W-ACC-GBP	£ 10.38	-	0.01	-
Sustainable Water & Waste W-ACC-GBP	£ 1.13	-	-0.01	0.15
Sustainable Water & Waste W-INC-GBP	£ 1.12	-	-0.01	0.15
UK Select Fund W-ACC-GBP	£ 3.61	-	-0.01	2.13
Global Enhanced Income W-ACC-GBP	£ 2.30	-	-0.01	4.29
Index UK Gilt Fund P-ACC-GBP	£ 0.77	-	0.01	0.59
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£ 0.89	-	0.00	0.16
Sustainable Multi Asset Growth Fund W-ACC-GBP	£ 0.95	-	0.00	0.08

Findlay Park Funds Plc (IRL)
30 Herbert Street, Dublin 2, Ireland Tel: 020 7968 4900
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
American EUR Unhedged Class	€ 155.99	-	0.86	0.00
American Fund USD Class	$ 161.70	-	1.43	0.00
American Fund GBP Hedged	£ 79.53	-	0.70	0.00
American Fund GBP Unhedged	£ 135.90	-	-0.68	0.00

Foord Asset Management
Website: www.foord.com - Email: info@foord.com
FCA Recognised - Luxembourg UCITS

Fund	Bid	Offer	D+/-	Yield
Foord International Fund | R	$ 48.32	-	0.32	0.00
Foord Global Equity Fund (Lux) | R	$ 15.58	-	0.34	0.00

Regulated

Fund	Bid	Offer	D+/-	Yield
Foord Global Equity Fund (Sing) | B	$ 18.57	-	0.41	0.00
Foord International Trust (Gsy)	$ 47.09	-	0.31	0.00

GAM
funds@gam.com, www.funds.gam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
LAPIS GBL TOP 50 DIV.YLD-Na-D	£ 128.90	-	-1.24	-
LAPIS GBL F OWD 50 DIV.YLD-Na-D	£ 101.78	-	-0.68	-

Guinness Global Investors

Fund	Bid	Offer	D+/-	Yield
Guinness Global Equity Income Y GBP Dist	£ 18.84	-	-0.14	2.34
Guinness Global Innovators Y GBP Acc	£ 25.84	-	0.08	0.00
Guinness Sustainable Global Equity Y GBP Acc	£ 11.37	-	-0.05	0.00

HPB Assurance Ltd
Anglo Intl House, Bank Hill, Douglas, Isle of Man, IM1 4LN 01638 563490
International Insurances

Fund	Bid	Offer	D+/-	Yield
Holiday Property Bond Ser 1	£ 0.48	-	0.00	0.00
Holiday Property Bond Ser 2	£ 0.63	-	0.00	0.00

Janus Henderson Investors (UK)
PO Box 9023, Chelmsford, CM99 2WB Enquiries: 0800 832 832
www.janushenderson.com
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Janus Henderson Instl UK Idx Opps A Acc	£ 1.10	-	0.00	3.13

M & G Securities (1200)F (UK)
PO Box 9038, Chelmsford, CM99 2XF
www.mandg.co.uk/charities Enq./Dealing: 0800 917 4472
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
M&G Charibond Charities Fixed Interest Fund (Charibond) Inc	£ 1.10	-	0.01	2.03
M&G Charibond Charities Fixed Interest Fund (Charibond) Acc	£ 39.05	-	0.14	1.62
M&G Charity Multi Asset Fund Inc	£ 0.88	-	0.00	3.89
M&G Charity Multi Asset Fund Acc	£ 104.75	-	-0.32	3.74

MMIP Investment Management Limited (GSY)
Regulated
Multi-Manager Investment Programmes PCC Limited

Fund	Bid	Offer	D+/-	Yield
UK Equity Fd Cl A Series 01	£ 2810.68	2842.19	142.84	0.00
Diversified Absolute Rtn Fd USD Cl AF2	$ 1588.98	-	5.05	0.00
Diversified Absolute Return Stlg Cell AF2	£ 1474.75	-	6.33	0.00
Global Equity Fund A Lead Series	£ 1721.66	1727.57	67.75	0.00

Marwyn Asset Management Limited (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Marwyn Value Investors	£ 329.72	-	-6.14	0.00

Milltrust International Managed Investments ICAV (IRL)
mimi@milltrust.com, +44(0)20 8123 8316 www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
British Innovation Fund	£ 121.92	-	2.89	0.00
MAI - Buy & Lease (Australia)	A$ 103.45	-	0.50	0.00
MAI - Buy & Lease (New Zealand)	NZ$ 91.20	-	-6.06	0.00
Milltrust Global Emerging Markets Fund - Class A	$ 89.79	-	3.08	0.00

Milltrust International Managed Investments SPC
em@milltrust.com, +44(0)20 8123 8316, www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Milltrust Alaska Brazil SP A	$ 79.82	-	2.33	0.00
Milltrust Laurium Africa SP A	$ 100.98	-	0.52	0.00
Milltrust Marcellus India Fund	$ 129.52	-	2.18	0.00
Milltrust Singular ASEAN SP Founders	$ 128.59	-	0.10	0.00
Milltrust SPARX Korea Equity SP A	$ 104.14	-	2.22	0.00
Milltrust Xingtai China SP A	$ 94.06	-	4.16	0.00
The Climate Impact Asia Fund SP (Class A)	$ 76.94	-	0.56	0.00
The Climate Impact Asia Fund (Class B)	$ 76.34	-	0.54	0.00

Mirabaud Asset Management (LUX)
www.mirabaud.com, marketing@mirabaud-am.com
Conviction based investment vehicles details available here www.mirabaud-am.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Mir. - Glb Strat. Bd I USD	$ 112.92	-	0.56	-
Mir. - DiscEur D Cap GBP	£ 163.55	-	-0.89	0.00
Mirabaud - UK Equity High Alpha	£ 138.31	-	-1.16	0.00

Oasis Crescent Global Investment Funds (UK) ICVC (UK)
Regulated

Fund	Bid	Offer	D+/-	Yield
Oasis Crescent Global Equity Fund USD A (Dist)	$ 34.41	-	0.22	0.25
Oasis Crescent Global Income Fund USD A (Dist)	$ 9.94	-	0.04	2.74
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 12.14	-	0.07	0.62
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 13.46	-	0.06	0.15
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 7.76	-	0.07	0.98
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.93	-	0.00	1.87
Oasis Crescent Variable Fund GBP A (Dist)	£ 9.75	-	-0.02	0.18

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Estimated NAV	$ 946.10	-	-9.48	0.00

Orbis Investments (U.K.) Limited (GBR)
28 Dorset Square, London, NW1 6QG
www.orbis.com 0800 358 2030
Regulated

Fund	Bid	Offer	D+/-	Yield
Orbis OEIC Global Cautious Standard	£ 11.77	-	0.01	0.00
Orbis OEIC Global Balanced Standard	£ 19.18	-	0.02	-
Orbis OEIC Global Equity Standard	£ 21.65	-	0.03	1.99
Orbis OEIC UK Equity Standard	£ 11.11	-	-0.03	3.45

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Platinum All Star Fund - A	$ 143.77	-	-	-
Platinum Global Growth UCITS Fund	$ 8.37	-	-0.09	0.00
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 11.90	-	-0.01	0.00
Platinum Global Dividend UCITS Fund	$ 48.16	-	-0.32	0.00

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Automation & Artificial Intelligence CL I USD Acc	$ 14.62	14.62	0.27	0.00
Asian Starts I USD Acc $	$ 13.96	-	0.39	0.00
Biotechnology I USD	$ 37.80	37.80	0.20	0.00
China Stars I USD Acc $	$ 10.60	10.60	0.45	0.00
Emerging Market Stars I USD Acc	$ 11.16	-	0.32	0.00
European Ex UK Inc EUR Acc	€ 13.85	13.85	0.03	-
Financial Opps I USD	$ 13.75	-	0.11	2.74
Global Convertible I USD	$ 13.54	13.54	0.11	0.00
Global Insurance I GBP	£ 9.91	-	-0.08	0.00
Global Technology I USD	$ 64.25	-	1.70	0.00
Healthcare Blue Chip Fund I USD Acc	$ 17.84	17.84	0.05	0.00
Healthcare Dis I Acc USD $	$ 12.01	-	0.16	-
Healthcare Opps I USD	$ 62.95	-	0.64	-
Income Opportunities B2 I GBP Acc	£ 2.89	2.89	-0.01	0.00
Japan Value I JPY	¥ 139.35	139.35	0.15	0.00
North American I USD	$ 32.86	32.86	0.40	0.00
Smart Energy I USD Acc $	$ 9.24	9.24	0.16	0.00
Smart Mobility I USD Acc $	$ 8.75	8.75	0.12	0.00
UK Val Opp I GBP Acc	£ 11.80	11.80	-0.07	0.00

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Monument Growth 15/11/2022	£ 544.17	549.50	15.00	1.11

Prusik Investment Management LLP (IRL)
Enquiries - 0207 493 1331
Regulated

Fund	Bid	Offer	D+/-	Yield
Prusik Asian Equity Income B Dist	$ 172.87	-	-0.20	5.08
Prusik Asia Emerging Opportunities Fund A Acc	$ 178.65	-	1.60	0.00
Prusik Asia Fund U Dist.	£ 211.27	-	-0.05	0.00
Prusik Asia Sustainable Growth Fund A Acc	$ 86.93	-	-0.44	-

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	D+/-	Yield
PCG B ✠	278.00	-	-1.94	0.00
PCG C ✠	270.49	-	-1.89	0.00

Ram Active Investments SA
www.ram-ai.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
RAM Systematic Emerg Markets Eq	$ 207.99	207.99	3.81	-
RAM Systematic European Eq	€ 508.46	508.46	1.35	-
RAM Systematic Funds Global Sustainable Income Eq	$ 147.03	147.03	0.84	0.00
RAM Systematic Global Eq Sustainable Alpha	$ 108.35	108.35	1.16	-
RAM Systematic Long/Short European Eq	€ 148.25	148.25	1.96	-
RAM Systematic US Sustainable Eq	$ 343.39	343.39	3.17	-
RAM Tactical Global Bond Total Return	€ 137.74	137.74	0.39	-
RAM Tactical II Asia Bond Total Return	$ 139.87	139.87	0.42	-

Ruffer LLP (1000)F (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 601 9610
Authorised Inv Funds
Authorised Corporate Director - Link Fund Solutions

Fund	Bid	Offer	D+/-	Yield
LF Ruffer Diversified Rtrn C Acc	106.21	-	-0.11	0.85
LF Ruffer Diversified Rtrn C Inc	105.32	-	-0.11	0.94
LF Ruffer European C Acc	762.47	-	22.75	0.82
LF Ruffer European C Inc	136.78	-	4.08	0.91
LF Ruffer European O Acc	739.30	-	22.02	0.54
LF Ruffer Equity & General C Acc	563.04	-	6.57	0.77
LF Ruffer Equity & General C Inc	508.68	-	5.93	0.78
LF Ruffer Equity & General O Acc	545.98	-	6.34	0.47
LF Ruffer Equity & General O Inc	502.37	-	5.83	0.47
LF Ruffer Gold C Acc	224.45	-	2.41	0.00
LF Ruffer Gold C Inc	135.85	-	1.46	0.00
LF Ruffer Gold O Acc	217.57	-	2.33	0.00
LF Ruffer Japanese C Inc	162.41	-	5.85	0.26
LF Ruffer Japanese C Acc	349.89	-	12.60	0.24
LF Ruffer Total Return C Acc	570.42	-	9.16	2.41
LF Ruffer Total Return C Inc	355.74	-	5.70	2.46
LF Ruffer Total Return O Acc	553.07	-	8.85	2.42
LF Ruffer Total Return O Inc	344.72	-	5.51	2.47

Rubrics Global UCITS Funds Plc (IRL)
www.rubricsam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Rubrics Emerging Markets Fixed Income UCITS Fund	$ 132.25	-	0.31	-
Rubrics Global Credit UCITS Fund	$ 16.44	-	0.05	0.00
Rubrics Global Fixed Income UCITS Fund	$ 168.20	-	0.61	0.00

Slater Investments Ltd (UK)
www.slaterinvestments.com; Tel: 0207 220 9460
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Slater Growth A Acc	649.34	649.34	-3.70	0.00
Slater Income A Inc	138.91	138.91	-0.81	5.22
Slater Recovery A Acc	334.73	334.73	-2.25	0.00
Slater Artorius	295.02	295.02	4.95	0.32

STONEHAGE FLEMING
GLOBAL BEST IDEAS EQUITY FUND

Stonehage Fleming Investment Management Ltd (IRL)
www.stonehagefleming.com/gbi
enquiries@stonehagefleming.com
Regulated

Fund	Bid	Offer	D+/-	Yield
SF Global Best Ideas Eq B USD ACC	$ 217.48	-	2.33	-
SF Global Best Ideas Eq D GBP INC	£ 277.33	-	-0.87	-

Superfund Asset Management GmbH
www.superfund.com, +43 (1) 247 00
Other International Funds
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Superfund Green Gold	$ 1241.85	-	8.84	0.00
Superfund Green Silver	$ 1058.87	-	-22.39	0.00

Regulated

Fund	Bid	Offer	D+/-	Yield
Superfund Green US$	$ 986.91	-	7.07	0.00

Toscafund Asset Management LLP
www.toscafund.com

Fund	Bid	Offer	D+/-	Yield
Tosca A USD	$ 406.01	-	8.84	0.00
Tosca Mid Cap GBP	£ 170.45	-	1.07	0.00
Tosca Opportunity B USD	$ 261.12	-	2.32	0.00
Pegasus Fund Ltd A-1 GBP	£ 40.62	-	0.28	0.00

Troy Asset Mgt (1200) (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 608 0950
Authorised Inv Funds
Authorised Corporate Director - Link Fund Solutions
Trojan Investment Funds

Fund	Bid	Offer	D+/-	Yield
Trojan Ethical O Acc	125.02	-	0.21	0.00
Trojan Ethical Global Inc O Acc	101.06	-	-0.43	-
Trojan Ethical Global Inc O Inc	98.55	-	-0.42	-
Trojan Ethical O Inc	124.77	-	0.20	0.00

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Memnon European Fund - Class U2 GBP	£ 241.89	-	-1.36	0.00

Toscafund Asset Management LLP (UK)
www.toscafund.com
Authorised Funds

Fund	Bid	Offer	D+/-	Yield
Aptus Global Financials B Acc	£ 4.76	-	0.01	4.36
Aptus Global Financials B Inc	£ 3.08	-	0.01	4.51

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Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Association, Camomile Court 23 Camomile Street, London EC3A 7LL. Tel: +44 (0)20 7831 0898.)

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Buying price: Also called offer price. The price at which units in a unit trust are bought by investors. Includes manager's initial charge.

Single price: Based on a mid-market valuation of the underlying investments. The buying and selling price for shares of an OEIC and units of a single priced unit trust are the same.

Treatment of manager's periodic capital charge: The letter C denotes that the trust deducts all or part of the manager's/operator's periodic charge from capital, contact the manager/operator for full details of the effect of this course of action.

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ARTS

THEATRE

Sarah Hemming

Toxic tale of co-dependency

Blackout Songs, the title of Joe White's new play, suggests a wartime romance, or a jolly Blitz-spirit singalong. But the blackouts in this fine two-hander are alcohol-induced. White's play careers through the chaotic lives of a young couple — he's an art student, we're never quite sure what she is — as they crash through binges, regrets, recovery and relapse.

That might sound grim, but this drama about addiction is witty, warm and unpredictable, combining classic romcom with a freewheeling narrative that plunges the audience into the hedonism of the couple's binges. Drinking for Him and Her (they remain unnamed until the very end) is fun, dangerous, rebellious: "I have two rules: stay single and drink doubles," she declares, like some hard-bitten Raymond Chandler character. Both are seduced by the myth of drink as a fuel to creativity. And, as much as they are addicted to the booze, they are addicted to each other on the booze. Without it, they don't quite know how to be.

The painful truth of that toxic co-dependency sits at the heart of the piece. Its impact lies in the combination of the instant buzz of individual scenes and a splintered structure that gradually draws us into the damage wrought by the couple's addiction. When we first meet them, he's in a neck brace and has a stammer. A couple of scenes later he has neither. Is this before or after? Is one scenario real and the other not? White uses a broken narrative structure to give the audience a taste of his characters' disorientation.

That disturbing undertow of loss, confusion and paranoia pulls against the dizzying drinking scenes to convey the destructive nature of addiction. Meanwhile the play gradually becomes more distressing as we see the queasy reality of the comedowns and the painful physical disintegration of the young man. By the end it is clear that this is a memory play, but a tragic one in which memory is corrupted and untrustworthy.

Guy Jones's production crackles with edgy energy, played out on Anisha Fields' set of chairs, which suggest hazy locations: AA meeting; hospital waiting room; church. Rebecca Humphries as Her and Alex Austin as Him are beautifully matched: she struts with a superficial confidence but suggests a deep-lying insecurity, while he has an eager, loose-limbed vulnerability.

To December 10, hampsteadtheatre.com

Alex Austin and Rebecca Humphries in 'Blackout Songs' – Robert Day

Blackout Songs
Hampstead Theatre, London
★★★★☆

Things Hidden Since the Foundation of the World
Battersea Arts Centre, London
★★★★☆

The Sex Party
Menier Chocolate Factory, London
★★☆☆☆

"The more you know, the more you understand," chants the podcast host in Javaad Alipoor's **Things Hidden Since the Foundation of the World**. It's the catchphrase for her murder-mystery podcast *Death in the Gaps*: a fictitious but recognisable cold-case-crime pod exploring theories around unsolved murders.

Her subject in this case is Fereydoun Farrokhzad, the (real life) Iranian superstar singer who was killed in Germany in 1992. Asha Reid, as our podcast host, floats possibilities (a political killing? a crime of passion?) all the while reminding us that, yes, the more we know, the more we will understand.

But Alipoor's piece (co-written with Chris Thorpe) sets out to demonstrate the opposite. Life in the information-technology age, he suggests, makes it easy to feel clued-up when, in fact, we have learned only what we, or our algorithms, guide us to know. The podcast is one strand of a dazzlingly complex show that unpicks the way our very thinking can be conditioned by the tools we use and by the assumptions of both those constructing them and using them.

It's a fascinating, knotty and elusive piece, darting about from one art form to another. It begins with Alipoor chatting to the audience. Theatre can likewise be seductive, he points out: he could explore Farrokhzad's death by referencing his own life as a British-Iranian, using his stage time to bridge the gaps between our lived experiences and deploy art as "a kind of medicine". He could draw parallels — describe Farrokhzad as the Iranian Tom Jones, say — but that would be to create false equivalences, leaving the audience with an illusion of understanding while perpetuating a western-centric view of the world.

Soon he's joined by the podcaster in an upper tier of Ben Brockman's set and by contemporary Iranian musician Raam Emami (whose life has some similarities to that of Farrokhzad), playing live in the space underneath her. At one point, Alipoor encourages the audience to pull out their phones and go down rabbit-holes on Wikipedia. There are gaps, red herrings and conspiracies scattered liberally throughout the show.

It's deliberately gnarly and sometimes incomprehensible. Not an easy watch. But like both Martin Crimp's recent *Not One of These People* and David Farr's *A Dead Body in Taos*, this is a fascinating metatheatrical piece that examines what technology has done to our sense of self and our ways of thinking.

To November 26, bac.org.uk

Javaad Alipoor in 'Things Hidden Since the Foundation of the World'
Chris Payne

Joe White's witty drama plunges the audience into the hedonism of the couple's binges

The Sex Party, it turns out, is just like any other party in that no matter what's going on in any other rooms, the main action is in the kitchen. At least that's the case in Terry Johnson's brittle new comedy of manners at the Menier Chocolate Factory. Here, the kitchen in question is a handsomely appointed affair (designed by Tim Shortall) in Islington, north London, where Alex (Jason Merrells) and his younger girlfriend Hetty (Molly Osborne), are holding a get-together for a couple of friends along with a group of people they've assembled via a website.

Given these are the ones they chose, you do wonder who they rejected. There's stoned Tim (Will Barton), who has only the barest clue what's going on, and his politically provocative partner (Kelly Price), who challenges Alex on the diversity of his guests.

There's sex-mad Russian Magdalena (Amanda Ryan), who starts by fuelling up on vodka from a skull-shaped bottle, and her obnoxious rich American husband (Timothy Hutton), who does something dodgy in "imports-exports". There's beautiful, uptight Gilly (Lisa Dwan — the real reason, we suspect, for the party, given that Alex is clearly still in love with her from years ago — and her jealous husband Jake (John Hopkins).

In the kitchen the clothes stay on, but the gloves come off. Copious amounts of alcohol together with a prickly group dynamic rapidly expose the cracks in the various couple's relationships and this sex party soon becomes about the tensions between the sexes and the old push-pull between freedom and security. Into this combustible set-up walks Lucy (the immensely elegant and poised Pooya Mohseni), a trans woman whose late arrival throws this apparently tolerant bunch into disarray and prompts a rancorous argument about gender, identity and equality.

It's like being on Twitter only with more alcohol and fewer clothes. Everyone has a view and everyone's view is clichéd, blinkered and bluntly expressed. That's partly the point of Johnson's play, which thwacks arguments about consent, freedom of speech and offence around the kitchen with deliberate lack of finesse, and it's tartly funny in places. But the characters are paper-thin and feel like mouthpieces — a shame given the calibre of the cast in Johnson's production — and the whole thing becomes a clunky, uncomfortable coupling of shock and care. The final scene suggests a gentle and positive acceptance of difference, but unfortunately it too feels peculiarly contrived.

To January 7, menierchocolatefactory.com

The Sex Party: John Hopkins, Lisa Dwan and Molly Osborne — Alastair Muir

FT FINANCIAL TIMES

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Fiery rhythms in a pulsating showcase

JAZZ

Native Rebel Recordings: The Brother Moves On, Chelsea Carmichael, CoN & KwAkE
EartH, London
★★★☆☆

Mike Hobart

Saxophonist/composer Shabaka Hutchings' projects range from beat-fuelled EDM and left-field, high-energy jazz to the acoustic joys of his South African collaboration Shabaka and the Ancestors. All have existed for a number of years, and have multiple releases, nominations and awards to their name.

Tuesday's EFG London Jazz Festival gig celebrated Hutchings's latest venture, the record label Native Rebel Recordings, with a pulsating showcase featuring four of the label's acts. The eclectic mix included south London rap and spiritual jazz while the South African connection continued with The Brother Moves On, the headline act. Label-boss Hutchings occasionally joined the fray and pointed politics, fiery rhythms and strong emotions were a common thread.

The evening opened with Kofi Flexxx, a signing so new that neither album nor songs had been named yet. Hutchings, now in the producer's chair, conducted a fair-sized ensemble that included saxes and brass alongside flutes. Established pianist Alexander Hawkins showed rhythmic finesse and drummer Jas Kayser focused sonic power; flautist Biscuit soloed throughout. The project aims to capture the energy of school bands with simple written charts. But overlapping rhythms, accuracy and ensemble warmth deliver much more than that.

Saxophonist Chelsea Carmichael's quartet followed, playing compositions from her debut album *The River Doesn't Like Strangers*. The core approach combined strutty themes, spiritual jazz and sharp beats while Nikos Ziarkas added a battery of beeps and grungy low-note sustains from the effects pedal of his guitar. A thrumming wall of sound opened the set and a township bounce bought the showcase to a close. In between, Carmichael, a powerful presence, delivered syncopated phrases and phonics with intent and Mutale Chashi's bass solo raised the crowd. But too often, the sound was over-egged by guitar.

CoN & KwAkE are rapper Confucius MC and Kwake Bass on drums. Here they were joined by pianist Hawkins for a set based on their album *Eyes in the Tower*. Smart rhymes reflecting on south London life and snappy hip-hop beats characterised this strong, atmospheric set. "Martin", a track about a vampire, got horror movies down to a T and the duo's young wise words included the line "we're too busy living in the moment to see life passing by".

No doubt as to why South Africa's The Brother Moves On was the headline act. Frontman Siyabonga Mthembu is a charismatic performer and he sung state-of-the-nation Zulu lyrics with a high tenor tone. The band was road-tested, the concept was clear. Two saxes riffed tightly and took on fiery solos. Label-boss Hutchings joined for a guttural, technically astute solo on tenor sax, but it was the vocalist's voice vibrating on high that brought songs from their latest album, *$/He Who Feeds You . . . Owns You*, vividly to life.

Their performance opened with "Puleng", introduced by rhythm guitar and acerbic alto sax. "Hamba the Reprise" came next, with a cappella vocal harmonies founded on guitarist Zelizwe Mthembu's bass voice. Later, "Sphila" was fuelled by martial drums while "Sweetie Love Oh" had glorious vocal harmonies and a lighter touch. The encore, "Bayakhala", was hard-hitting and brief.

efglondonjazzfestival.org.uk

Shabaka Hutchings playing with The Brother Moves On at EartH, London
Roger Thomas

FT BIG READ. DEFENCE INDUSTRY

Australia's defence dilemma

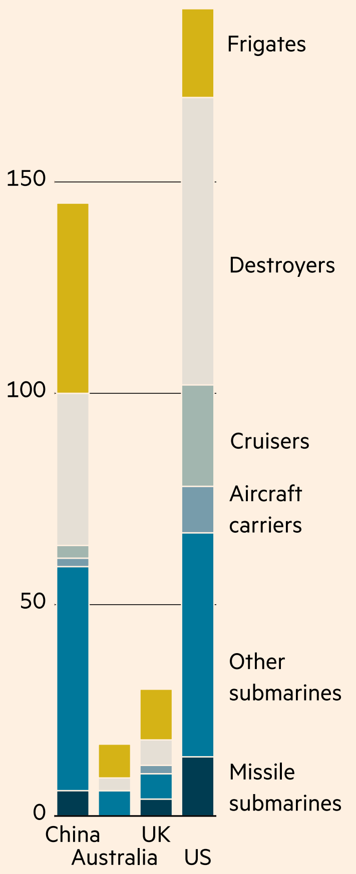
Canberra is boosting military spending, strengthening alliances and demanding a seat at the 'big table' of global affairs. But will this upgrade and projection of force provoke China?

By Nic Fildes and Demetri Sevastopulo

Illustration and data visualisation by Ian Bott

Balance of power on the high seas

Naval forces: principal surface combatants and submarines



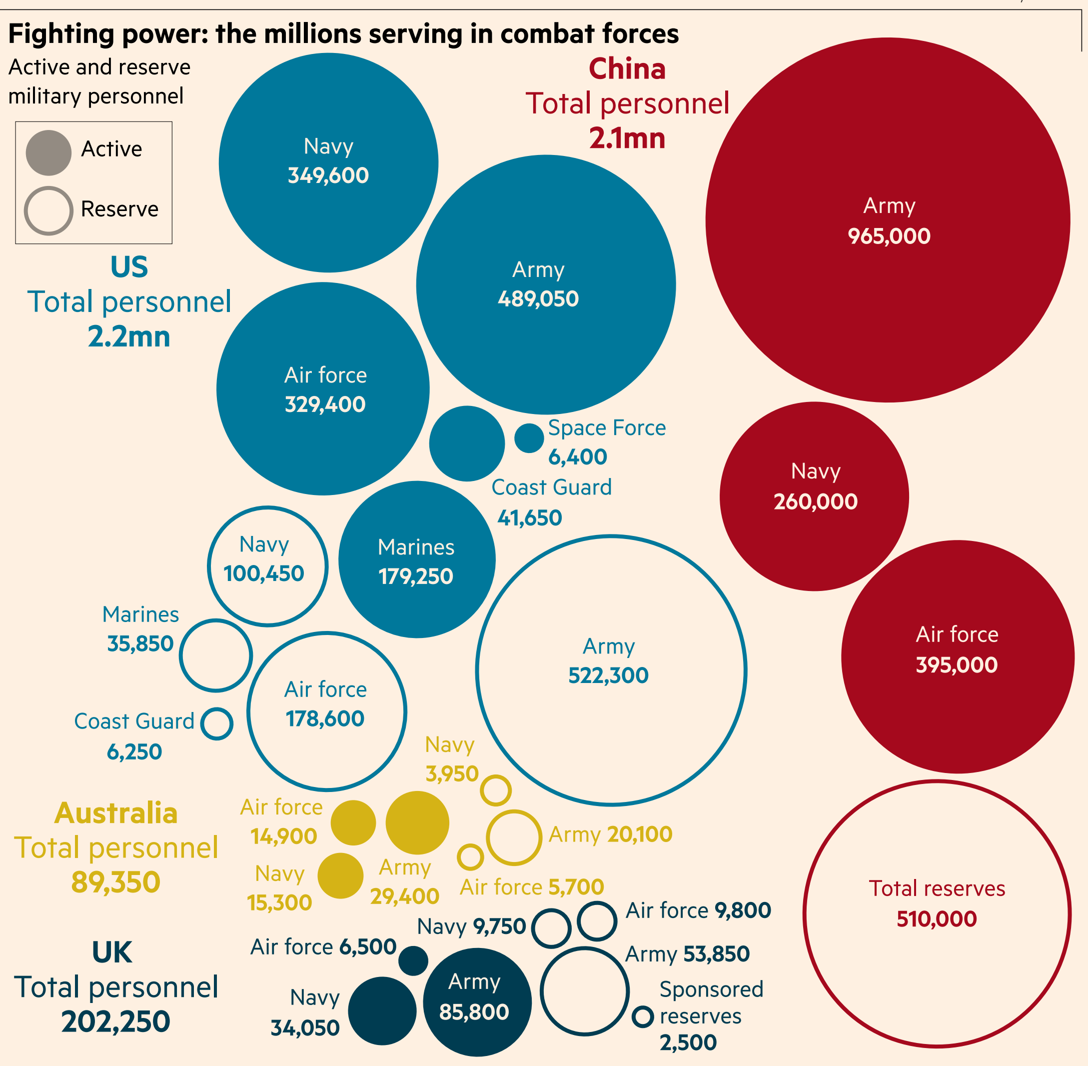
Source: IISS; Sipri

Australia is a non-entity in nuclear terms

Nuclear forces, numbers of warheads

Fighting power: the millions serving in combat forces

Active and reserve military personnel



The shipyard in Osborne, a suburb 20km north of Adelaide in the St Vincent's Gulf of South Australia, feels far removed from the simmering geopolitical conflict between the US and China.

The freshly built facility has the air of a Hollywood set with enormous sheds connected via narrow roads. Golf cart-like vehicles ferry equipment and people between locations.

Yet the Osborne precinct is the symbolic heart of Australia's burgeoning military industry at a time when the country seeks to claim a seat at the "big table" of global affairs.

This was made clear in a speech this week by Richard Marles, Australia's defence minister, who said that competition between China and the US in the Indo-Pacific was driving the biggest military build-up anywhere in the world over the past 70 years. Australia, he went on to say, has found itself in a more "relevant" role than ever before.

But the country has a difficult line to tread. As it strengthens military ties with European and American allies, Canberra is also seeking to cool tensions with Beijing while refusing to buckle in its trade and security disputes.

And when prime minister Anthony Albanese met with China's leader Xi Jinping this week on the sidelines of the G20 in Bali — the first bilateral meeting between the two countries since 2016 — it was a hint of a potential thawing of relations.

Nonetheless, Russia's invasion of Ukraine and tensions over China's ambitions towards Taiwan, which it considers part of its territory, has led to the Labor government persevering with the previous administration's hard-nosed approach to national security.

At the centre of that strategy is the "Aukus" agreement Australia signed with the US and the UK in 2021. Its purpose is to deliver nuclear-powered submarines and advanced missile development. It means that some 60 years after Australia first explored whether it would be able to source nuclear-powered submarines — a US technology only shared with the UK — Canberra's role in the Indo-Pacific has been given a significant upgrade.

Half of the world's submarines are expected to be operating in the region by next decade, according to the Royal Australian Navy.

The Australian government's switch from less powerful diesel French submarines to more sophisticated US or UK-designed vessels was hailed as a sign that a wide-ranging, long-awaited upgrade of its defence capabilities was coming to fruition.

The move, however, triggered a diplomatic crisis with the French and antagonised the Chinese, who called Aukus an "extremely irresponsible" pact that would undermine regional security.

When Australia in May elected a centre-left Labor government for the first time in almost a decade, it led to uncertainty over whether the country would change tack, particularly when the costs and challenges of building nuclear-powered submarines were laid bare.

Marles, who believes Australia needs to be more responsible over how critical projects are managed, immediately kicked off a wide-ranging exploration of the nation's security challenges, the Defence Strategic Review, that he says will "underpin defence policy for decades to come".

Marles has pointed to 18 contracts, which combined are running A$6.5bn ($4.4bn) over budget, and 28 projects that are cumulatively 97 years late.

Charles Edel, an Australia expert at the CSIS think-tank, says: "There have been so many defence initiatives introduced over the past year that it can be hard to distinguish which have real resources behind them, and which look more like monopoly money. The Defence Strategic Review, if it's done right, should provide an initial answer to that question."

The review is not a cost-cutting exercise; Marles has pledged to increase the defence budget while setting out a more pointed endgame. It is designed to ensure Australia becomes a more active player in the alliances it has formed, including Aukus and with other regional players such as Japan and India.

"We must adapt to the world as it is, not as we would wish it to be," Marles told the Sydney Institute, a privately funded non-profit forum. "A world where post-cold war optimism has been replaced by the reality of renewed major-power competition. A competition in which Australia is more relevant now than at any time in our history."

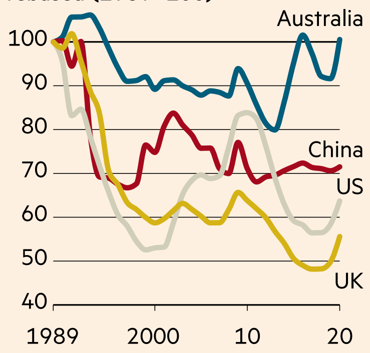
'Preserve peace, prepare for war'

The Aukus deal was signed against the backdrop of rising tension not only between the US and China but also between China and Australia.

A trade dispute arose after punitive tariffs were applied to a number of Australian goods including wine, coal and lobsters. A series of military incidents in the South China Sea and off the Australian coastline further tested the once strong relationship.

Australia spends more on its military, relatively

Military expenditure as % of GDP, rebased (1989=100)



Source: World Bank

Peter Dutton, who was defence minister when the Aukus deal was signed, said in April: "The only way you can preserve peace is to prepare for war and be strong as a country, not to cower, not to be on bended knee and be weak."

Billions of dollars worth of projects have been proposed to help Australia secure a dream inventory that includes helicopters, unmanned aircraft, combat drones and hypersonic missiles.

A cyber security centre in Canberra called Redspice, costing A$10bn, has been announced and the government has committed to hiring 18,500 extra defence staff by 2040. Military spending overall rose to 2.1 per cent of gross domestic product this year compared with 1.6 per cent eight years earlier.

Marles, who inherited many of these projects, is exploring ways to "expedite" the delivery of the nuclear-powered submarines. Australia faces a capability gap under the existing plan in which its present fleet of Collins class submarines will need to be retired before their replacements can be built.

The challenge for Canberra is how to prioritise defence spending, particularly given the expected heavy price tag for the submarines — as much as A$171bn says the ASPI think-tank — as it more closely aligns its programmes with those of its allies.

One person familiar with the situation in Canberra says the government has been astonished by some of the Aukus cost estimates after being briefed on the negotiations led by the previous administration. "They are starting to see the internal stuff on Aukus and Taiwan for the first time. There is some sticker shock and surprise about how much Australia is doing with the US and Japan," he says. "It's just 'wow'. They are getting used to that."

The person adds that US Navy nuclear experts who were sceptical about supplying nuclear-propulsion technology to Australia are now more confident that Canberra is serious about taking the steps needed to develop and operate a nuclear submarine fleet.

"This is what the US nuclear navy and industry is going to watch [as their thinking is] 'we can't help you unless you put the money in'," he adds.

The decision over how Australia will build and maintain nuclear-powered submarines — "possibly the hardest thing in the world", according to Anne-Marie Trevelyan, the British former international trade secretary, who visited Osborne in September — will have a lasting legacy.

Sam Roggeveen, director of the Lowy Institute's international security programme, says the government can still push for an "off-the-shelf" option, that is buying submarines directly from US or UK shipyards. "We shouldn't be too optimistic this will ever come to fruition," he says, given the lack of skills and experience in the country, compounded by an aggressive timetable and budget constraints.

The uncertainty has caused anxiety in Osborne. Peter Malinauskas, the South Australian premier, has warned that any move by the government to abandon plans to build the submarines in Australia would be a "broken promise".

> 'It will put us at the big table in so many aspects — the economy, skills, defence. We deserve to be there'

Reviving the sector

About A$700mn has been earmarked to upgrade Osborne — which comprises adjacent ship and submarine facilities — to support the building of nuclear-powered submarines. The work would triple the size of the precinct.

Naval Group, the French contractor that was going to build submarines on the site before its contract was torn up, has been paid almost $600mn to make way for the promise of Aukus.

The shipyard is already gearing up for the construction of a fleet of submarine-hunting frigates that will be built by BAE Systems. Ensuring sites such as Osborne have a constant pipeline of shipbuilding projects is what the government and industry argue will revive Australia's homegrown defence sector.

Tony Dalton, deputy secretary of the Royal Australian Navy's National Naval Shipbuilding programme, says investment in Osborne goes beyond the previous "feast and famine" approach. "One of the reasons why we want to build ships here is because it plays into helping build a sovereign sustainment ecosystem for us. And that's the real goal we want to achieve," he adds.

Craig Lockhart, managing director of BAE Systems Australia's maritime division, says the Hunter-class frigate programme and Aukus establishes Australia as an asset in any future conflict. "It will put us at the big table in so many aspects — the economy, skills, defence," he says. "We deserve to be there."

Yet the A$44bn programme, signed in 2018, has been beset by cost overruns and production delays. A leaked engineering report last year suggested the project was in trouble. Marles' defence review has already found the project is facing a A$15bn increase in costs.

A further blow was delivered by David Shackleton, a retired vice-admiral in the Royal Australian Navy and a former chief of navy, who said Australia had chosen a ship "unsuited for its needs". The criticism from a respected figure sent shockwaves through Australia's naval establishment.

Six months on, BAE's leaders, flanked by top naval personnel, presented a united front in Osborne. Lockhart said delays to the project had been largely clawed back and prototyping of the giant steel blocks that will form the bowels of the giant frigates were under way.

The Hunters are expected to play a significant role as a "mother ship" for a modern Australian attack force operating in the Indo-Pacific alongside its allies. They will incorporate Lockheed Martin's latest Aegis combat management system as well as Saab's "Australian interface" — a locally made system — as part of the "Australianisation" of a frigate developed by BAE Systems in its Scottish shipyards.

Andrew Quinn, a commodore and director-general of the Royal Australian Navy's surface combatants and aviation unit, says Australia's combat capability is set to "spiral" as more software and remote programming is built into its new generation of ships and submarines.

The planned "mission bay" on the Hunter Class frigates, is designed to house vehicles, auxiliary helicopters or containers full of staff controlling drones in a combat scenario. "That can then be highly attuned . . . to the change of the threat and geopolitical context of the future," says Quinn.

'Is this who we really are?'

Angus Houston, a former head of the Australian defence forces, one of those conducting the defence review, has previously warned that Australia's strategic environment had deteriorated over the past year to its worst state in his lifetime.

That is the impetus for the overall defence review. "The strategic review is a really big deal," says Edel, of the CSIS think-tank, adding that the government needs to demonstrate progress on the non-submarine aspects of Aukus. This means "advanced capabilities" in areas such as underwater and quantum technologies, as well as hypersonic and counter-hypersonic capabilities.

> 'This is a question not just of military strategy but of how Australia defines itself as an international actor, and as a nation'

The underlying concern is whether the construction of nine frigates and eight nuclear-powered submarines will be enough to match the pace of China's flourishing shipbuilding sector.

One former Australian naval chief says the country will never be on a level playing field no matter how much it spends. This is precisely why the Aukus deal, which locks in Australia with its allies as one unified force, is so important. "We are not competing numerically," he adds, calling for a smarter strategy.

This sentiment is shared by Marles: "Australian statecraft is only viable if it is underpinned by the ability to project force and power: to deter military threats, and defend Australia's national interests within our immediate region."

In the months since Aukus was signed, Australia's alliance with the US has grown stronger. This month, the US State Department gave its approval for the potential sale of 24 Super Hercules military cargo aircraft to Australia, a deal worth almost $6.4bn.

One sticking point in the alliance is the bureaucratic red tape that means the US is less likely to share certain information with allies. This is particularly frustrating given that Australia is a member of the tight information-sharing mechanism known as the Five Eyes intelligence network, alongside the US, UK, New Zealand and Canada.

"Australia really hammers away at those kinds of issues because . . . it is really about a very deeply grained psychology of independence in the US," explains Mark Watson, director of the Washington office of ASPI. "No one ever got sacked for over-classifying a document. Overcoming that entrenched bureaucracy and mindset is hard."

There is a deeper question hanging over the country's escalating military build-up and its increasing role in international affairs. "Australia has never before gone so dramatically on the offensive in its weapons acquisition, buying a weapon expressly designed to hem China's navy in along its coastline and strike targets deep inside Chinese territory," says Lowy's Roggeveen.

"This is a question not just of military strategy but of how Australia defines itself as an international actor, and as a nation. Australians should be asking themselves: is this really who we are?"

Marles says it is a "false dichotomy" to paint a picture where the country must choose between the US and China because it is no longer "blessed with a benign strategic environment". "Improving our national security isn't provocation," he says. "It's prudence."

The FT View

FINANCIAL TIMES

‘Without fear and without favour’

It is time for the Republicans to drop Trump and Trumpism

Former president damages American democracy and the party’s electoral chances

Donald Trump had expected to be surfing a red wave of Republican success in the midterm elections — including by his own handpicked candidates — when he launched his 2024 presidential bid. Things did not work out that way. The GOP had a bad midterms, thanks in part to the flame-out of Trumpian candidates. The launch of Trump 2024 notably lacked the swagger with which he swept down a golden escalator to unveil his 2016 bid. Moderate Republicans and business backers now have an opportunity to rid the GOP of him and his nefarious influence. They should grasp it.

The former president has proved he is a danger to US democracy. The House January 6 committee has presented persuasive evidence of a broad-ranging plan by Trump and allies to overturn the 2020 election results by whatever means, including violence. Trump opposes most of the principles that made America such a vital force in the world.

There are now other compelling pragmatic reasons for the party to move beyond a candidate who is no longer a winner. Republicans had a chance to drop Trump after the January 6 assault on the Capitol. Many opted for a Faustian pact with Trumpism because they thought he was the ticket to victory. They assumed that fealty to a man with an iron grip on the GOP was the only way to unlock support or funding. Growing evidence now suggests Trump is an electoral liability.

Not only did he lose the 2020 election. In last week’s midterms, Trumpian candidates lost nearly all the key Senate or gubernatorial races they contested. In the most competitive House districts Trump-backed candidates underperformed and non-Trump candidates overperformed expectations based on recent voting patterns. If Trump’s shadow contributes to the Democratic incumbent winning next month’s Georgia Senate run-off then, improbably, the Democrats will have gained a net seat in the upper chamber.

Though Trump is still popular among the Republican base, it is often the more independent voters’ behaviour that decides elections. Polling suggests independents broke for Democrats over Republicans in the midterms by 4 percentage points nationally — and by more in important battleground states.

It is possible that Trump is motivated to stand not entirely by a belief he can win, but in part to protect himself against possible indictments stemming from various federal and state investigations. Declaring candidacy provides no shelter from the law, however, and should be no deterrent to prosecutors if they believe they have a watertight case.

Yet if the future of American democracy was, alongside inflation and crime, a key midterm voter concern, exit polling suggests another was the restriction of women’s abortion rights. This is an issue linked not just to Trump but to the GOP’s broader swing to hardline conservatism in recent decades. It is not only Trump that Republicans should ditch. They have to move on from positions that drive away many women, young people and centrist voters.

> Moderates and business backers have an opportunity to get rid of him and his nefarious influence. They should grasp it

A basic test for GOP candidates must be to pledge respect for the electoral process and its results. But candidates from all shades of Republican opinion should be encouraged to throw their hats into the ring to stimulate a debate over what their party stands for. Senior party figures and donors, too, should think hard about how their choices helped to lead America down the Trumpian path, with all the damaging consequences that entailed. The Blackstone founder Stephen Schwarzman’s decision to drop support for Trump and back a candidate from the “new generation” is a telling sign of the times. Others should follow.

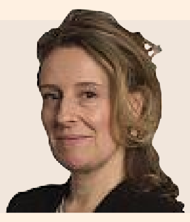
ft.com/opinion

Opinion Society

Politicians crave a public ‘shot at redemption’

Ben Hickey

Miranda Green



Do all political careers inevitably end in failure, as Enoch Powell famously quipped?

Looking (aghast) at some of the recent developments in the UK, we might want to update this observation. These days they seem to descend into ignominy, humiliation — a lot of it self-generated — and a weird, almost immediate desire to find a way back. In the words of Paul Simon, they want “a shot at redemption”.

Turmoil in the Conservative government has produced a parade of characters whose careers and reputations are hitting the buffers at speed. For months now, the Westminster soap opera has been barely distinguishable from politically themed entertainment.

In the US, meanwhile, the failure of some of the Donald Trump-endorsed celebrity candidates to break through in last week’s midterm elections raises the hope that the very crudest manifestations of celebrity democracy may be running out of road. The TV medic Dr Oz, promoter of quack cures, springs to mind: he missed out on a Senate seat in Pennsylvania.

> Does the process of modern, media-saturated democracy inevitably reward the self-involved?

In Britain the trend has reached a surreal apex with the former health secretary, Matt Hancock, eating a camel’s penis in the Australian jungle as part of a reality TV show. The MP thinks this culinary self-flagellation might redeem him in the eyes of the public, who disapproved of his extramarital office clinch that breached Covid social distancing guidelines.

On air, Hancock explained his motivations to fellow inhabitants of the camp in the *I’m A Celebrity* jungle: “What I’m really looking for is a bit of forgiveness . . . We all make mistakes.”

His case throws up a question: does the process of modern, media-saturated democracy inevitably reward the terminally self-involved? Barton Swaim explores this in his superb memoir *The Speechwriter*, about working for the then governor of South Carolina Mark Sanford. Sanford produced perhaps the world’s most exquisite euphemism for an affair when in 2009 he claimed he was “hiking on the Appalachian trail” while lying about a tryst with his mistress.

When busted, his emotional apologies exhibited the same infantile egotism as the original behaviour. Reading Swaim’s book a few years ago, I found overblown his conclusion that democracy has a “deadly flaw” in that it rewards the vain and self-regarding. Now I’m not so sure.

Professor Pete Hatemi, a political scientist at Penn State university, sees parallels in an increasing tendency on both sides of the Atlantic for politics to attract narcissists, and for television and social media to encourage their antics by delivering them a fan base. “The levels of seriousness have evaporated,” he tells me.

Hatemi tuned in to this summer’s Conservative party election debates and noted the game show format. The winner, Liz Truss, lasted only a few weeks as prime minister after her fantasy economic policy spooked the markets. “The elites . . . are increasingly narcissistic and of course that doesn’t actually come with skills,” he says. The outcome? “It all comes crashing down.”

An earlier study Hatemi co-authored using data from the US and Denmark, indicated that the public who are engaged in politics (outside of major national election time) also tend to “believe that they are better than others”. Anyone buttonholed by a zealous activist will recognise this description.

It would be nice to imagine that a course correction is at hand. But Hatemi doubts that a pendulum swing away from all this rampant egomania is likely. In the UK, new prime minister Rishi Sunak had no sooner promised “integrity” than his administration became mired in controversies over ministers displaying what Hatemi calls “false bravado”. Suella Braverman has managed to hang on as home secretary — colleagues backed her instant “redemption” after only six days in the Whitehall doghouse. Sir Gavin Williamson protested that his behaviour had been “mischaracterised” as bullying even as he had to resign from the government. Both ministers stressed that they had apologised, as if that alone should absolve them.

Williamson was described as a “cartoon bully” by the opposition. But he won’t want to, in Simon’s words, “end up a cartoon in a cartoon graveyard” — he’ll need his own shot at redemption if he’s to avoid the same fate as all those other failed politicians. Sanford stood for Congress a few years after his public shame and won. Even at their lowest moment these characters plot the next step. As for the rest of us, the lyrics say it best: “I don’t find this stuff amusing anymore.”

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Overseas students are more than a cash cow for UK universities

John Thornhill is right — politicians must shout about the benefits of immigration (Opinion, November 11).

We should also celebrate our international students. All too often in the UK their value is portrayed as a pecuniary resource, not for their much deeper contribution.

In an age when international relations are strained and diplomacy is at a premium, we have a great resource from the network of people who once studied here and are now friends and allies.

As our international students graduate and become alumni, they provide valuable links to other countries. The international students who stay in the UK as alumni often start companies, move into leadership positions and contribute greatly to our society while retaining links to their home countries. Countless international collaborations, partnerships and business deals have come from these connections.

Those who return home take with them a knowledge and affection for our people, traditions and ways of working. The strong allegiance to the UK that I see among our overseas alumni is a valuable diplomatic asset in good times and bad. When I meet Imperial’s alumni, they lament the fact that their children no longer wish to study in the UK. A decade ago, they were aiming to study in the US. This is changing. While the numbers of students studying abroad has grown, the US and UK are losing market share. One reason may be the populist rhetoric and policies running through the US and UK projecting a less welcoming environment for immigrants.

Throughout the world there are five to 6mn people studying in another country right now. We have enjoyed a privileged position attracting a large share of them. We should be stepping up efforts to encourage them to come to the UK with the right policies and our vocal appreciation of what they bring beyond their fees.

Alice Gast
Former President, Imperial College
London SW7, UK

Ending the Covid patent truce should worry us all

We should all be concerned when we read in the FT that “Moderna battles for Covid vaccine rewards” (Report, November 11).

It brings to mind the work of Nobel laureate Sir John Sulston who led the campaign to stop the patenting of the human genome so that this monumental discovery would always be in the public domain and available to scientists throughout the world.

I recall a talk he gave to a group of young further education students at Cambridge Regional College, when he explained that while there was a need to fund pharmaceutical research and medical inventions through patent protection, nonetheless the fundamental science from which they were developed must remain in the public domain.

I understand he worked tirelessly to publish the human genome work he led at what is now the Wellcome Sanger Institute near Cambridge. This prevented a US scientific enterprise from patenting the knowledge.

I thought the FT sub-headline “Ending of patent truce triggers struggle for the future of mRNA technology” chilling.

For the sake of us all, let’s hope Moderna’s financial ambition-driven legal attack fails.

John Beadsmoore
Great Wilbraham, Cambridgeshire, UK

The ash heap of history awaits acolytes of growth

Leo Lewis (“‘Degrowth’ — Marxism is back for the modern age”, Opinion, November 7) could easily have expanded the rise of the “degrowth” philosophy to encompass the entire developed world. This is because Gen Z cannot square the continual increases in per capita gross domestic product with their own stagnant or diminished prospects. If they see little chance of living even as well as their parents did, then why destroy the planet for the benefit of the few?

If the acolytes of economic growth expect the coming generations to buy into their system, they had better set about reworking how its profits are distributed. Otherwise the ash heap of history awaits.

Guy Wroble
Denver, CO, US

Crypto is heaven-sent for bad actors like N Korea

Your exposé of the way North Korea finances its missile programme through cyber crime and crypto did it for me (“How North Korea became a crypto crime hub”, Big Read, November 15). The FTX saga has already illustrated the industry’s lack of oversight and regulation, combined with the ease of creating conflicting interests.

These defects are serious and expose transactors to serious loss. The creation of crypto “currencies” addressed a problem that hardly exists given the efficiency of central bank-created fiat currencies and the associated transmission mechanisms.

The fact that crypto is untraceable makes it heaven-sent for bad actors. Whatever nugatory benefits that crypto generates is completely offset by the very obvious disadvantages. Time to kill it.

Stephen Kingsley
London W8, UK

Nothing for the weekend?

No puzzles this weekend! Have you decided that our lives are troubled enough without adding further mental challenges?

Katherine Boyd
London CR0, UK

OUTLOOK

TRANSYLVANIA

Chicken soup with King Charles, Romania’s royal patron

by Valentina Pop

Of all King Charles’ passions — the environment, homeopathy, traditional English architecture and Laphroaig whiskey — perhaps the least well-known is his love for Transylvania. The King (then Prince of Wales) voiced his feelings most recently in a video broadcast in 2020, declaring: “Romania holds a very special place in my heart. I can trace my forebears all the way back to Vlad Țepeș, which may explain why, each time I visit, there is a part of me that feels at home.” This revelation was all the more surprising given that Țepeș was the gruesome 15th century Romanian ruler who impaled his opponents and allegedly served as inspiration for Bram Stoker’s *Dracula*.

Almost every year over the past two decades, Charles has visited the Transylvanian village of Viscri — a gem just north west of Brașov, tucked away behind leafy hills, where people still travel in horse-drawn carts. On most of his trips, the King stayed in a modest blue-painted house that he acquired in 2006.

This summer, the house (which had previously been a guesthouse) was opened to the public for the first time, welcoming hundreds of people every day. One sunny afternoon, it was brimming with tourists slightly underwhelmed by the sights. “Not exactly what you’d expect from a royal house,” I overheard a Romanian teenager remarking to her parents as she posed for selfies against the cornflower-blue wall. I was instantly transposed to my own grandparents’ house in Vințu de Jos, some 150km west through the Transylvanian countryside, where I spent most of my summers and winters growing up. A photograph of the last owner of the house sitting playfully on a child’s wooden swing, her feet up in the air, brought a moment of déja-vu. My own late grandmother would also break her day of hard labour by taking a swing in a hammock under an old vine. Sadly, my family had to sell the village house, as everyone had moved out and it was falling into disrepair.

Most families, particularly German-speaking ones, went through a similar experience, leaving the villages after the fall of communism (the Germans known as Saxons, had settled in Transylvania in the middle ages). Some, like me, left the country altogether. But one villager, Caroline Fernolend, decided to stay. Her parents had inherited the keys to the fortified church in Viscri and she lobbied government officials in Bucharest and influential foreigners on how rural tourism might be a route to economic revival for villagers like hers. “They all laughed at me, we got no support from authorities,” she recalls. It was only through Lady Jessica Douglas-Home, who had founded the Mihai Eminescu Trust (a charity promoting education and culture in Romania) in the 1980s, that Prince Charles came to the country for the first time in 1998.

By this time, Fernolend had little hope of assistance: “So many people had come through our house, everyone making promises that were never kept.” But Douglas-Home did, and so did the Prince. His first visit to Viscri was exactly two decades ago. “My mother made chicken soup, we ate it up at the fortress,” Fernolend recalls. “There was no publicity, so he felt at ease, he could walk about without anyone recognising him. We went on foot from one village to another, he was fascinated by the lush nature, the flowers, the mushrooms.”

In the years that followed, the King was a regular visitor. He asked Fernolend how best to help — and she replied that owning a house here would help raise awareness of Romania’s rich cultural heritage. Initially the Mihai Eminescu Trust donated the blue house to Charles, and it was later purchased by his foundation, the Prince’s Trust. The charity ran local workshops for crafts at risk of extinction, managed the blue house as a guest house, and helped install a sewage system in Viscri. Gradually, more tourists were drawn to the area. This summer, demand to see the house was so great that the Trust decided to open the blue house to day-trippers, rather than using it as a guest house. Vlad Giurgiu, a tour guide there, acknowledges that the King may not be able to visit as often as he once did. But the blue house will never be empty, he says. “Either way, people will keep coming”.

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Opinion

How not to fire people

BUSINESS

Brooke Masters

Tech HR departments are out of their depth. After years of throwing money at anyone with a computer science degree or IT experience, companies are having to get rid of employees instead.

Amazon and the Facebook owner Meta lead the pack for scale of job cuts, with more than 10,000 planned apiece, while Twitter is grabbing headlines for brutality and incompetence. New owner Elon Musk axed roughly 3,700 employees via email and immediately tried to rehire some of them, saying they had been let go by mistake.

The firing spree goes beyond the big names: nearly 800 tech companies have announced redundancies since January, wiping out 120,000 jobs, including 25,000 just this month, according to layoffs.fyi, a tracking website.

Barring a few veterans who survived the dotcom crisis, tech workers have never seen anything like this. The way the cuts are handled could shape the sector's culture for years to come.

Normally, innovation and rapid growth require tech employees to keep the faith. They often work long hours and solve apparently impossible problems while waiting for financial rewards that can take years to arrive. Unexpected job losses, especially if they are handled cruelly, undermine any sense of shared sacrifice among not just the departed but those left behind.

Technology companies faced with their first big culls should bear this in mind and learn lessons from other sectors. Banking is notorious for attracting many employees who care mostly about immediate personal gain. That's why the reforms enacted after the 2008 financial crisis aimed to force staff to care about the consequences several years in the future.

This short-termism was a natural consequence of decades of cyclical hiring and firing that sapped any sense of institutional loyalty. Banks spent decades staffing up in good times only to indiscriminately swing the axe in bad ones. And many of them did it in particularly unpleasant ways. In 2012, the Swiss bank UBS made clear how little individual feelings mattered. Some 100 fixed income traders based in London learnt they had lost their jobs when they got to the entry turnstiles and found their access passes turned off.

> Twitter is grabbing headlines for brutality, but companies that show basic decency can reap benefits

The post-Covid version, as practised by Twitter and others, is to deactivate someone's work Slack and email accounts before telling them they are being let go. Heartlessness sends the message that workers are expendable, so why should they put in effort that will not benefit them directly?

At the same time, companies that show basic decency can reap benefits. When pandemic travel bans hit the US airline industry, Delta managed its financial crunch mainly with voluntary buyouts and unpaid leave, while American and United announced mass lay-offs. When air travel came back last summer, Delta had fewer problems with cancelled flights partly because the Atlanta-based carrier was able to staff back up more quickly.

Though the other carriers rescinded most of their job cuts after receiving government aid, their erstwhile staff took advantage of the hot job market and chose to go elsewhere. (Loyalty only goes so far: the Delta pilots' union recently voted to strike to protest against delays in contract negotiations.)

While avoiding mass firings is ideal, many tech executives think this isn't possible. Still, some ways of doing things are clearly better. Patrick Collison, chief executive of payments company Stripe, has recently won praise for his admission that he erred and for generous severance packages, while Brian Chesky provided outplacement support for departing workers as part of Airbnb's 2020 job cuts.

Management experts say it is best to have one big round of cuts, with proper outplacement benefits, and be clear about why the losses are needed and when they will stop. Being human and accessible helps. But don't overdo it. Braden Wallake, chief executive of marketing agency HyperSocial, became a figure of online fun after posting a selfie of himself crying over lay-offs.

Above all, says Bob Sutton, a Stanford University organisational psychologist, don't pretend that you are simply getting rid of poor performers: "Everybody knows it's bullshit and in the future you may see them again. You may even want to hire them again."

Tech executives may also want to draw lessons from professional services firms, which have decades of experience in easing people out, due to their "up or out" employment structures. For many law firms and consultancies, alumni networks are a source of referrals. Sometimes being nice pays.

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Tories' low tax fetish is a mistake

Ellie Foreman-Peck

BRITAIN

Robert Shrimsley

The Conservative party has been imitating itself for so long that it can no longer tell the original from the pastiche. A party of powerful instincts seems, at times, reduced to a Margaret Thatcher tribute act mechanically churning out greatest hits and imagining that history began in 1979.

Sometimes this Great British Take-Off sees its leaders trying to echo Thatcher — or more often what they like to think she thought. Sometimes it is the Powellite Conservatism of Nigel Farage or the obsessions of the rightwing media. Earlier policies are given the status of sacred texts and heresies denounced. From Europe to the environment to the size of the state, MPs and outriders argue not over whether a policy is right or wrong, but whether it is "unconservative".

The latest skirmish, over tax rises, will dominate Conservative debate for weeks following Jeremy Hunt's fiscal statement today. After the fiasco of Liz Truss and Kwasi Kwarteng's "mini" budget, it is accepted that restoring sound public finances and market credibility is the overwhelming priority even in the face of recession.

But the uneasy truce Rishi Sunak enjoys with his party may not last. Tories remain fixated by a tax burden which, post-pandemic, has risen to levels unseen since the 1950s. This is one reason why spending cuts will still take more of the strain than Hunt initially envisaged (though much will be back-loaded till after the next election). Even so, he will raise taxes and freeze allowances, relying on the stealth of fiscal drag to pull millions into a higher tax bracket. Memories of the Truss tax experiment will quell immediate revolts but some on the party right are already raging against those they brand as TINOs (Tories in name only).

At the heart of this is the dogma of faux Thatcherism, which holds that the Tories' central mission is to be the party of low tax and a small state. This view is fortified by the sense that the party has lost many of its other dependable electoral differentiators. Yet since taxes will remain high by UK standards, it is unrealistic. Beyond that, it is the wrong strategic priority.

The Conservatives do not need to be the low tax party; they have only to be the lower tax party. It is necessary only that people believe that whatever the economic circumstances, taxes would be higher under Labour.

The good news for the Tories is that people generally do think this: the party enjoys a brand recognition which associates it with careful spending and lower taxes. And they can set a trap for Labour. Having set out savings beyond the election they will challenge the opposition to accept the cuts or say how their reversal would be funded.

There is real worth in a political party whose instincts veer towards lower taxes and a smaller state. The drift of government is always to do more, to find new ways to spend public money. This can only be arrested by a party which persistently asks why a job can't be done by the private sector or a responsibility left to the individual. But there is a difference between an instinct and an ideology. Asking these important questions is not the same as insisting that there can only ever be one answer.

Thatcher herself had significant tax-cutting instincts, and yet the tax burden did not fall meaningfully until halfway through her premiership (it rose in her early years) because she understood that policy could not be divorced from circumstances. The core mission is not to get the tax burden or public spending below a certain figure. It is good governance. This is where the current Conservative debate has gone wrong, elevating aspirations into doctrine.

> Faux Thatcherites ask whether a policy is 'unconservative', not if it is right or wrong

The low tax battle is not even the one that Tories need to win now. For one thing, it is clear that the public understands the need for higher spending. People can see that the country has been hammered by two external shocks (three if you add Brexit to Covid and the energy crisis). They know furlough and energy support schemes must be paid for. Voters see public services in a state of collapse and infrastructure needing upgrades. They bought into the idea of investment for future growth. Last year's British Social Attitudes survey showed just six per cent of those polled wanted tax cuts at the expense of key services. A full 52 per cent wanted tax raised.

The argument the Tories actually need to win is that they still deserve to be trusted on managing the economy, tackling inflation and protecting public services. This will be painful but fiscal discipline is comfortable territory for them. Beyond that, they need a plan to tackle the UK's anaemic economic growth, which Truss rightly identified as the underlying challenge. Without it, there is no low tax path which meets public demands.

It is not clear that the next election will be determined by tax rates. It is more likely to be fought on the state of public services and who is best placed to propel any nascent recovery. After 12 years, an overlong dose of austerity, Brexit, stagnant living standards and the political chaos of the past year, it may simply be that time is running out for the Conservatives.

The Tories do not need to rebuild their tax-cutting image. They need to regain a reputation for competent stewardship and offer hope for rising living standards. Obsessing about an ideologically acceptable tax ratio is missing the point, for themselves and, more importantly, for the country.

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The caging of the US Kraken

AMERICA

Edward Luce

Saying the quiet bit out loud is rarely a good idea. Yet after last week's midterm success, Democrats cannot help themselves. The gist is that they would love Donald Trump to be the 2024 presidential nominee because his name would all but ensure another Republican defeat. They are probably right about that. Whether Maga Trumpism would do better without its author is a tougher one to answer.

The prospect of Trump riding the Mar-a-Lago train all the way to its next wreck — even if he is not indicted in the meantime — offers a tantalising fix for the Democratic party. With Trump, Democrats would win so much people would get tired of winning (to borrow a phrase). Should Democrats retain the White House, that would mean they would have governed America for all but four of the 20 years since the 2008 financial meltdown. It would also prove that Trump's single term was indeed an "aberration", as Joe Biden put it.

That vista is even more beguiling for Democrats considering America's likely economic picture in 2024. Last week was as bad a time as any to consult the electorate's mood. But for Trump and a raft of cartoonishly Trumpian candidates, the Republican red wave would probably have hit. Two years from now US growth will have probably rebounded from the recession that is expected next year. Inflation will be under control. Making Trump a loser again would be the cherry on the cake.

But it would be a blunder to think the American Kraken has just been slew. That mythical sea monster that came to stand for America's id has not vanished. It needs a new figurehead. There is no reason to think that Trump's demise would restore the party to the country club Republicans whom he banished. Potential rivals such as Ron DeSantis, the re-elected Florida governor, Mike Pompeo, Trump's former secretary of state, and Glenn Youngkin, Virginia's governor, would be auditioning to lead the Maga movement, not to abolish it. The path to defeating Trump will lie through Trumpism.

Displacing Trump without alienating his base will require dexterity. No one wants to be called a Brutus. If Trump's rivals lack the courage to strike first, he will do it for them. He has already got into the habit of attacking DeSantis as a talentless ingrate and saying bizarre things about Youngkin. The essence of his attacks is that they owe their victories to him. Eventually Trump's goading will prompt what he fears — their hats in the ring. This conjures what will be a first in US politics: your rival inadvertently launching your campaign for you. It is hard to see how the coming war for Trump's mantle will benefit the Republican brand.

> By launching a campaign that is about personal grievances, Trump is writing his own obituary

Wise heads warn against writing Trump off too soon. His premature obituary has been written too often. Almost nobody thought he would survive the fallout from the failed putsch of January 6 last year. Yet he bent the party to his will. By launching a 2024 campaign that is entirely about personal grievances, Trump is writing his own obituary. His pitch is almost completely devoid of the appeals he made in 2016 to the "forgotten American" (whom he seems to have forgotten). Trump's political career will either come to an end in the vitriolic Republican primaries that are about to get under way or via defeat in a general election.

Democrats are booking front-row seats. The first act will be Trump's insertion into next month's Georgia Senate run-off between Herschel Walker — the former football star and the Trumpiest of candidates — and Raphael Warnock, the Democratic incumbent. Trump has already snatched defeat from the jaws of victory in Georgia — in the two losing run-offs last year that handed control of the US Senate to Democrats. By insisting the election would be rigged he depressed Republican turnout and handed victory to the two Democrats. Less is riding on Georgia's decision this time as Democrats already have the 50 Senate seats they need. A Warnock victory would nevertheless remind Republicans that Trump is their most expensive indulgence.

It is possible, even probable, that Trump's only role now is to leave his party in ruins. That would be the Democratic dream. Yet last week's results point to a less comforting narrative for Democrats. There is still a path to victory for hinged Trumpians. Their goal is to channel the Trumpist appeal — hatred of America's liberal elites, resentment of corporate America, disdain for freeriding Europeans — minus the caprice of its namesake. The Kraken is awaiting a new champion to release it from its cage.

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Protect the UK from foreign influence activities

Paddy McGuinness

One of the most nerve-racking aspects of advising UK prime ministers on security matters was the knowledge that, while we often had the intelligence prowess to detect foreign influence operations, we lacked the legal basis to do much about them. The public mistakenly thought that laws from a different age, such as the Official Secrets Acts, met the need and that the threat was manageable. Actually we were, and are, in jeopardy.

However, this week, the national security bill moves to its next stage of parliamentary scrutiny. If it progresses as planned, we will soon have the necessary laws to confront interference by foreign powers in our decision-making.

The threat of our democratic institutions being subverted is not static. Most media coverage is about Russian or Chinese actions that are either more widespread or more often detected than previously thought. Ken McCallum, director-general of MI5, warned yesterday that Chinese authorities are cultivating UK political contacts to manipulate opinion in China's favour. This is of great concern. States with covert capability and manipulative intent use these tools against us; many have an interest in shaping our policies for geopolitical or economic reasons. Paranoia about the intentions of foreign states is a mistake, but so is complacency.

We have a long history of countering hostile intelligence officers who operate in the UK as diplomats, by expelling them or restricting their freedom. Foreign powers have developed even more covert means for their influence operations. In recent years there has been a focus on their digital tools: disinformation, hack and leak operations, and the amplification of division through social media. We underestimate the human channel at our peril. Our politics and institutions are susceptible to being undermined by individuals or organisations who pose as being independently engaged in commerce, civil society, lobbying or even research. They can mislead, suborn and subvert.

> Our politics is susceptible to being undermined by organisations which pose as being independent

Our politics must be well-informed and evidence-based. Representatives of foreign states, businesses, charities, think tanks and interest groups deserve to have a voice. However, this only works if there is transparency. Subversion and abuse need to be excised.

The Foreign Influence Registration Scheme (FIRS) within the national security bill is designed to provide a clearer picture of influence activity, while increasing the risk for those working covertly for foreign powers. Those who do not register will be liable to investigation and potentially criminal prosecution. The aim is to allow early intervention and act as a deterrent.

FIRS will require businesses to register all their political influence activities directed by a foreign entity. To be effective, this must go beyond those commissioned by a foreign state directly, to those acting for foreign corporate bodies. For example, if a foreign company directs a business in the UK to lobby a government minister on issues such as foreign policy, defence, energy, technology or climate, then the UK business will need to register this with FIRS. If the foreign company is lobbying the minister directly, then it will also need to register its activity.

The scheme has been designed to minimise the burden of registration and avoid disruption. Employers can submit any relevant arrangements with, and activities for, a foreign entity via an online form. There will be no fee. The data provided will fall under existing data protection legislation.

The implementation of this scheme should not constrain business activity in the UK: proportionality is critical. But it does require action by businesses who work with foreign governments. I hope they will recognise it as an opportunity to help protect our democratic institutions, and to put into practice values that so many of them espouse.

The writer was formerly the UK's deputy national security adviser. He is writing in association with the Home Office

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SpaceX/Musk: star bucks

Third time lucky. A Nasa rocket blasted off on a mission to orbit the Moon yesterday after a couple of launch cancellations. It is part of a longer-term plan to put humans on Mars and reignites a space race with China. The biggest benefits could go to private US space companies, including Elon Musk's SpaceX.

Nasa's $93bn Artemis programme uses Boeing as its main rocket contractor for the first mission. Rivals able to cut costs could replace it. Nasa inspector-general Paul Martin says each Artemis launch will cost about $4.1bn — a figure he calls "unsustainable". This is eight times more than Nasa expected a decade ago.

Privately held SpaceX has a head start. It has ferried US astronauts to the International Space Station and has a $2.9bn contract to develop a rocket that can land crews on the Moon. Its reusable Starship rocket, which should lower launch costs, is in development.

The Artemis programme sets increasingly ambitious goals. It aims to orbit the Moon, then send a crewed flight, then undertake a lunar landing. Eventually, the plan is to create a base from which to send human explorers further into space.

SpaceX can pencil in Nasa as a client for cost-intensive rocket development. Eventually, it hopes to run its own missions to Mars. But can SpaceX afford the trip? Musk's fundraising skills are impressive. SpaceX has raised close to $10bn to date. Its last reported valuation was $125bn.

Neatly timed press reports yesterday said the business could sell a package of mostly secondary shares. These could increase the notional value of the business to some $150bn.

The company is generating revenue independently of Nasa via Starlink. The satellite broadband company recently partnered with T-Mobile to provide wireless phone coverage in remote areas of the US.

For now, Starlink revenue is just a fraction of the $30bn that Musk is reported to have predicted by 2025. It has more than 400,000 subscribers. Users pay about $110 a month plus one-time terminal costs, meaning it would need more than 15mn subscribers to meet its goal.

One day, Starlink may dominate satellite communications while SpaceX dominates rocket launches. But yesterday's Artemis launch shows it will all take a lot longer than the initial schedule suggests.

Nigeria: a slippery recovery

Soaring consumer prices suggest Nigeria's central bank will raise its policy interest rate again next week. The bank's proven willingness to tighten monetary conditions is about the only orthodox element in the country's policy mix.

Last week, Fitch followed Moody's and S&P Global in cutting Nigeria's credit rating to the lowest notch in the highly-speculative bracket. It blamed rising debt service costs and a shortage of foreign currency in Africa's largest oil producer despite high oil prices.

Rather than tackling such problems head on, the government appears determined to tinker around the edges.

Consumer price inflation reached an annual 21.1 per cent in October, up slightly from September. With the bank's policy rate at 15.5 per cent, another rise next week looks inevitable. The same determination should be applied to fixing Nigeria's persistent budget deficit and its chaotic foreign exchange regime.

Oil production in Nigeria typically follows commodity prices. These have soared in the past two years, but production has crashed to a four-decade low. Output is hobbled by sabotage and theft. The Nigerian National Petroleum Corporation said it had discovered 295 illegal connections to its pipelines and claimed to have "taken down" thousands of illegal refineries. Subsidies also eat up government revenues.

Nigeria's exchange rate is under pressure. The black market rate this month reached about 900 naira to the US dollar, more than double the official spot rate. Still, Nigeria's stock market has outperformed MSCI's frontier markets index this year by some way, and is considerably cheaper at 6 times forward earnings.

Investors must hope that a new government, to be elected in February, will tackle both fuel subsidies and the currency. Oxford Economics suggested buying government debt this month on this expectation. The less adventurous should wait and see.

Experian: checking out

Most see the tech giants as manipulators of big data. Experian quietly earns plenty from sifting through personal credit information.

The UK-listed group expects sales growth of 8 per cent and higher profit margins in the year to March. It is confident that its stellar run during the low interest rate era will continue.

Experian's shareholders have their doubts. Its stock's valuation has compressed by a third this year to 28 times its forward earnings, belying analyst profit estimates at record highs. But already there are signs that higher credit costs are taking their toll.

True, earnings proved resilient during the pandemic. Analysts misjudged its impact in 2020 when a GFC-sized drop failed to materialise.

During the 2008 financial crisis, earnings per share fell by about 15 per cent, in line with analyst expectations.

A savings glut since then partly explains why consumers in the US, Experian's largest market, have yet to suffer any cost of living crunch this year. But US real wages are slipping, down more than 5 per cent since April, says the Bureau of Labor Statistics.

Any cash buffer could evaporate by the end of next year, thinks JPMorgan.

Higher credit costs play a part. Bigger mortgage rates have reduced housing transactions. These might be a third below 2021 levels next year.

Experian revenues directly exposed to mortgages may be small, just 3 per cent of the US total. But this area's turnover has already fallen 35 per cent in the six months to September.

Diminishing credit demand should mean less volume for its consumer reports. Already Citi thinks US organic top-line growth of 5 per cent is more realistic for Experian in the next financial year to 2024, more than a third below the analyst consensus.

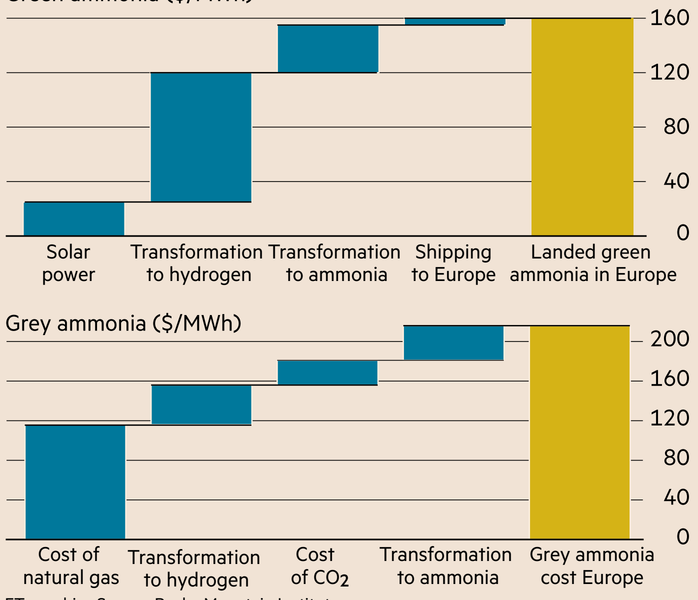
That shift alone would knock earnings estimates lower by 5 per cent.

Big data has made Experian an earnings machine. But its rosy view of economic data leaves the shares vulnerable to further declines.

Green ammonia: have hydrogen, will travel

Green ammonia will have a role in the net zero energy system of the future. This year, high natural gas prices in Europe have increased the cost of grey ammonia. That has made the green value chain — based on solar power — competitive today.

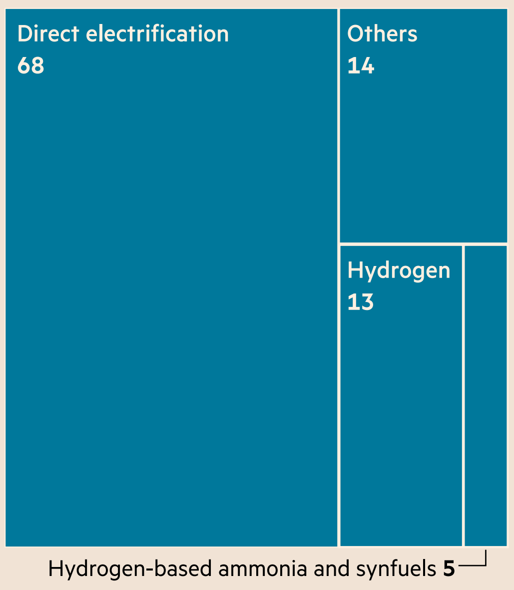
Ammonia value chain comparison



FT graphic Source: Rocky Mountain Institute

Energy demand in a net zero scenario

%



Source: Energy Transitions Commission

COP27 host Egypt has thrown its weight firmly behind green ammonia, signing eight framework agreements to build billions of dollars of plants. The pungent compound makes an unlikely decarbonisation hero. Yet it could play a key role in the energy system of the future. Even better, high gas prices mean that, in some use cases, green ammonia is already competitive today.

There is not a lot to love about ammonia — a toxic mix of hydrogen and nitrogen used to make fertilisers. But it is reasonably energy dense, so it is a good way to turn hydrogen — which is really hard to compress — into something that one might transport over long distances via the tanks of a ship.

That makes ammonia very useful for countries that have a lot of wind and solar potential but are far away from places they might want to sell that to. Australia, home to renewables to hydrogen to ammonia champion Fortescue Future Industries, has been an early proponent. Saudi Arabia is also keen, alongside African nations such as Namibia, Mauritania and South Africa. Egypt is ideally positioned, too, with ample sun, wind and proximity to shipping through the Suez Canal.

Futuristic visions will have some value. But, on paper at least, green ammonia is competitive already. High European gas prices have driven up the cost of traditional ammonia to above $200/MWh in energy terms, some four times historical levels.

No wonder 50 per cent of Europe's total ammonia capacity was curtailed this summer, according to CRU group. If one could make ammonia in Africa today, assuming solar costs at $25/MWh and a conservative approach to the value chain costs, one might get the compound into Europe for something like $160/MWh, suggests Thomas Koch Blank at energy non-profit RMI.

Of course, this price differential may not last. European gas prices will retreat as new supplies come online.

Yet the fact remains that if green ammonia were around today it would be cheaper than the fossil alternative. That highlights how the current energy crisis could boost the green transition.

Bitcoin: wash day

Cryptocurrencies always merited scepticism. The collapse of platform group FTX — and a halt to withdrawals at Genesis Trading — means they need even sharper-eyed scrutiny. The foremost candidate is the price of bitcoin. The volatility of the flagship digital asset has been perplexingly restrained, given recent events.

Bitcoin is trading just under $16,500, about a fifth lower than a few weeks ago. Surely it should have fallen further. It is a key asset in the incestuously entwined dealings of the crypto industry.

The next question springs naturally to the minds of conspiracy theorists who remember Libor rate-rigging: are quoted prices accurate? Yes and no. Screen prices tend to be composites compiled from inputs supplied by multiple exchanges.

All bitcoin transactions, in theory, are logged transparently on the blockchain. This led to the downfall of FTX. Internet sleuths realised the exchange was funding customer withdrawals from Alameda trading arm. But on-exchange activity may not be logged publicly. Many deals involve transfers between clients in a single wallet of an exchange. That could muddy price formation.

Disreputable traders have scope for "wash" trading — owners selling assets to themselves using different wallets. That could create the impression that prices are higher and liquidity more plentiful than was the case.

Wash trades have been estimated to account for as much as 90 per cent of volumes. Unscrupulous crypto business could potentially offer fake liquidity to help attract new customers. One study by the Blockchain Research Lab, a non-profit, found that some outlier exchanges reported volumes 134 times higher than a control group.

Two trends in buying activity have appeared this year. One, the share of long-term holders is steadily growing. Two, trading volumes for wallets containing 1 bitcoin or less hit an all-time high in early November.

That could reflect newfound confidence among an army of small investors — or a clever attempt by a few big investors to simulate that phenomenon.

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CROSSWORD

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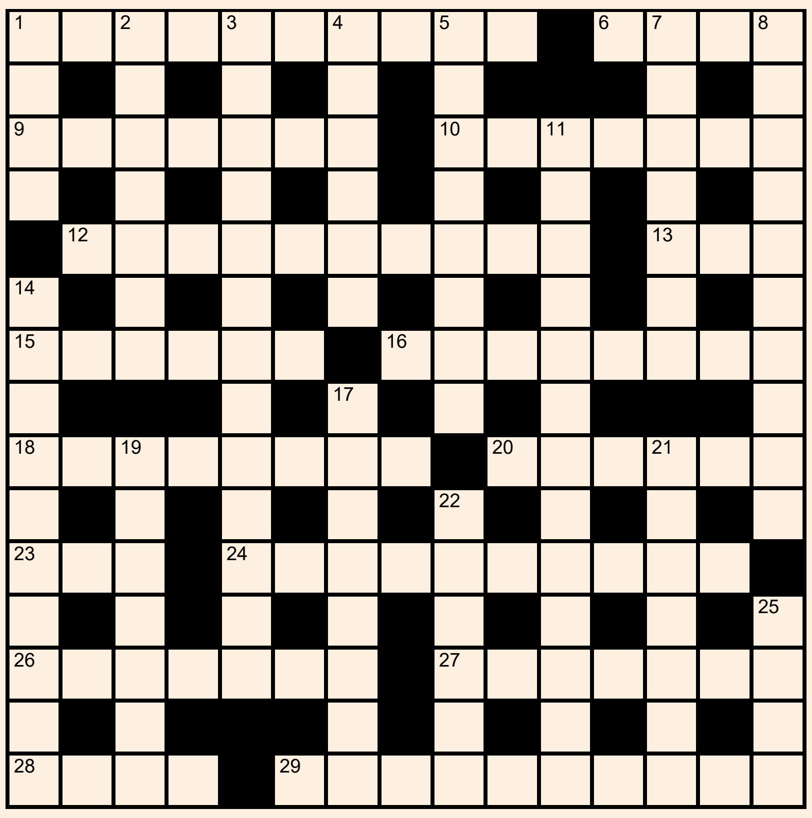


ACROSS

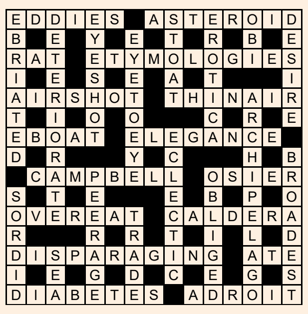
1 Free issue entertains Charlie with current page (10)
6 What attention-seeker says in Bishop's Stortford (4)
9 Horse getting fed single humbug (7)
10 Country in Middle East, to the west, up in arms (7)
12 Servers with great hair (10)
13 Husband chasing secretary? I'm appalled! (3)
15 Get up weary, needing a tea we hear to start with (6)
16 Hiding from Democrat causing friction (8)
18 Gold stolen by American friend without ethics (8)
20 Stranded sailor, one leaving pleasure trip touring round (6)
23 Nice way perhaps to experience sorrow (3)
24 Jazz musician, say, is stopping one getting better (10)
26 Singer has divine gift, holding note (7)
27 Labour Party losing energy in the end (7)
28 Coward in Spanish city making a retreat (4)
29 What driver might do to generate rage? (6,4)

DOWN

1 Where Napoleon was clever following revolution (4)
2 Ultimately ingesting drug, if nothing else (2,5)
3 Business people limiting firm's dismay (13)
4 They're paid to notice gas rising up (6)
5 Exchange rate bound to offer value (8)
7 Acute case of ignorance about possible pet (4-3)
8 Environmentalist, one like Selma or Masha? (4-6)
11 Defiant U-boat crew here rationed after rioting (13)
14 Parisian greeting large army moving north, one on horse (10)
17 Facial adornment - careless (8)
19 Conspicuously outstanding depth in new oeuvre (7)
21 What's leaked in instruction to view document? (7)
22 Figure found under most of seat cushion (6)
25 Slight noise made by drinker, not quiet (4)

JOTTER PAD

Solution 17,253



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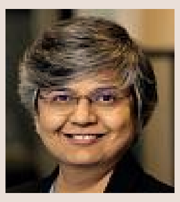
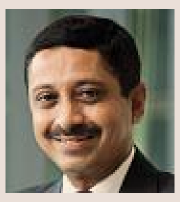
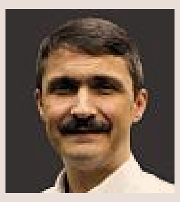
Gan Kim Yong
Minister for Trade and Industry
Republic of Singapore


Vandita Pant
Chief Commercial Officer
BHP

Jeremy Weir
Executive Chairman & Chief Executive Officer, *Trafigura*


N. Muthukumar
CEO, Operations
Olam Agri

Laure Baratgin
Head of Commercial Operations, *Rio Tinto*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